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**NOTES ON THE COMPOSITION OF
SCIENTIFIC PAPERS**

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NOTES
ON THE COMPOSITION
OF
SCIENTIFIC PAPERS

BY

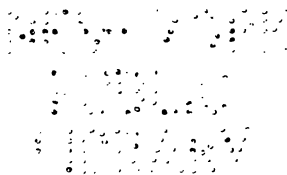
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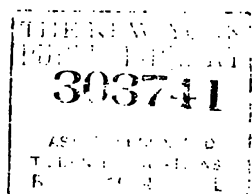
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NOTED
JULY
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PREFACE

In the course of the year I peruse sixty or seventy theses for the degree of M.B. and about twenty-five for the degree of M.D. The matter of these theses is good, it is often excellent; in composition a few are good, but the greater number are written badly, some very ill indeed. The prevailing defect of their composition is not mere inelegance; were it so, it were unworthy of educated men: it is such as to obscure, to perplex, and even to hide or to travesty the sense itself. Thus, for the judge who would be just, many of the theses are very hard reading; and, meritorious as in substance they may be, are, as they stand, unfit for the printer. The use of thesis-writing is to train the mind, or to prove that the mind has been trained; the former purpose is, I trust, promoted, the evidences of the latter are scanty and occasional. Thus, when the Act is kept, we are often forced, against our desire, to dwell on faults of form to some exclusion of the argument. It seemed to me, therefore, that if.

by a collection of the commoner errors and defects, once for all I were deceived in my hope of bringing about some reformation of the essays, I might at any rate so economise my censures of the manner as to devote myself in future to the matter only.

I fondly supposed that these criticisms of form might be put together for the press, as an open letter, in a few afternoons: I was sadly deceived. The task proved to be far heavier than I had anticipated. Moreover, for the humble duty I set before myself I had made no special preparation; I had read no grammars, nor the handbooks of literary artists. The treatise of Mr. Miles on Essay-writing appeared before my manuscript was finished, but by a mischance his volume—though kindly dedicated to me—had failed to reach me. Mr. Cornford's book appeared after my little work was done. Yet I am glad I did not see these books, or others of the kind, lest at the beginning I might have been tempted by such bright examples far out of my narrower way. The books of Mr. Miles and of Mr. Cornford are systematic and constructive, they survey the field and the methods of authorship; my hints, if, as I trust, they have some organic unity, are but comments on the more frequent or the more eminent defects of scientific essays, and are as unsystematic and occasional as the defects themselves. I have observed no scheme or proportions in my parts but

those of the faults and errors after which they are designed.

With the stuff of which theses are to be made I have not concerned myself; for scientific papers the kind of subject and the stuff are preordained. If, as Mr. Cornford tells us, teachers and examiners of the day are demanding essays not, as ours are, on the rough and homely materials of common work, but on the sublimer qualities of life, on *Eloquence*, *Enthusiasm*, *Courtesy*, *Thoroughness*, *Patriotism*, *Drama*, *Travel*, *Education*, *Sympathy*, *Wit* and *Humour*, *Eminence of Great Men*, *All is Vanity*, and the like—themes I have gleaned from his book, if these issues of rich fancy and ripened experience are required of schoolboys and undergraduates, it is well that they have Mr. Miles and Mr. Cornford to teach them the cunning of it all, and to “open yet another career for dulness.” One day in my remote past I was set to create such an essay on my slate while my governess went out to tea: Death was the subject she thought appropriate for my handling. After much gasping in the vacuity of my mind, in which was neither straw nor clay, I became so fatigued as to be beset by the handsome word “erroneous” which that morning I had admired in the mouth of one of my elders. Surely this word made itself inevitable; and on her return my governess perused this brief but I venture to think not unsuccessful little essay: “Death is an

erroneous circumstance." I publish it now for the first time, as both for form and substance Mr. Cornford's disciples may find it a useful pattern in the art of "painting shadows in imaginary lines."

In obedience to a general desire I have divested these critical notes of the peculiarly medical features which they had at first; while preserving their immediate purpose, I have exchanged many of my medical instances for others of a pleasanter kind; nevertheless this tract is intended chiefly for my own students, and is chiefly concerned therefore not with letters as a whole but with so much of the form and correctness of scientific papers as my experience tells me is perverted or neglected by their authors.

My quotations are given for the most part without acknowledgment; for obvious reasons.

CONTENTS

CHAPTER I

	PAGE
INTRODUCTORY	1

Fashion of academic essays, 1. Their purpose, 2. Choice of subjects of scientific essays, 3. Their titles, 6. Definitions, 7. Form, 8. Methods of composing, 11. Revisions, 12. Logic of an essay, 15. Summaries, 17. Beginnings and ends, 18. References, 22. Dictation, 23. Anyhow will do! 23. Precision, 25. Formalism, 29. Growth and decay in language, 31. Gaudiness, 33. Slang, 35. Obsolescent words, 37.

CHAPTER II

ON COMPOSITION	40
--------------------------	----

Creation of instrument of language, 40. Grammar, 42. The chapter, 59. The paragraph, 60. The sentence, 62. Order of clauses, 64. Suspension, 70. Split infinitive, 74. Chopping sentences, 77. Order of words, 79. Choice of words, 84. Etymology, 85. Parts of speech, 87. Feeble verbs, 87. Exuberance of adjective, 88. Meagre vocabulary, 89. Tags and mannerisms, 91. Misused words, 93-114. Superfine words, 115. Misused Latin words, 117. Tautology and redundancy, 118. Emphasis, 126. Metaphor, 130. Abstract style, 133. Quotations, 135. Sound, 137. Accent, 143. Punctuation, 144. Little counsels, 147. Models of prose, 150.

CHAPTER I

INTRODUCTORY

IT is in no desire to curtail my conversation with candidates for degrees in Medicine that I publish a few notes or hints on the composition of scientific papers. The larger conditions of method and material cannot be reduced to notes; they will always be with us for counsel and inquiry: but there are many conditions in the economy of argument, in the handling of common knowledge and ideas, in the use of authority, in the forms and aids of expression, which must be observed in all exercises of the kind. My present purpose is to instruct the candidate on minor points, that he may be spared the smaller corrections which occupy some of the time and pains which are better spent upon the weightier contents of theses submitted for the Acts for M.B. and M.D. degrees, and of other academic essays.

It is one of the duties of a University to give instruction, and much of its instruction may be tested by suitably devised exercises, even by some kinds of examination; but it is our higher

function to teach our students to think, and of this accomplishment the thesis or essay is the chief evidence. Thus it is that the Faculty of Medicine in Cambridge regards the theses as necessary parts of the exercises for degrees; their use being two-fold: to train the mind, and to show how far it has been trained. The theses for M.B. are on the whole remarkably good; some of them indeed reveal no inconsiderable power of thought and research: if at this stage, however, we are content with a fair measure of industry and intelligence, from the candidate for M.D. or D.Sc., for a Fellowship or Studentship, for one of the larger University prizes, or for the graduation of an 'Advanced Student,' more is expected; from such a candidate we expect some maturity of thought, some wealth of personal experience, something of the art of putting his thoughts; and indeed some originality. He must have made the subject his own; his treatment of it must bear the characters of personal observation and reflexion which raise an essay above the level of ordinary compilation, and the powers of handling ideas and principles which distinguish, or should distinguish, University training as contrasted with technical instruction. "A man," says Sir Thomas Browne, "should be something that all men are not, and individual in somewhat beside his proper name." If in such essays we find the cardinal qualities, we are lenient in respect of some slovenliness of arrangement, or some inaccuracy of language, unbecoming as such faults may be.

That we do not always succeed in teaching the student to think is but too evident in his bewilderment when he has *to find a subject for an essay*. Now, it is true that the proper choice of a subject is a difficult matter, one in which few candidates can be independent of the assistance of their elders; yet too often the student is bewildered, not in his choice of one among the infinite number of subjects calling for inquiry, but in his contentment with current formulas, in his lack of perception of the immaturity of our science, the hollowness of much of our knowledge, and the solidity of much of our ignorance. Students who have attended my lectures may remember that I try not only to teach them what we know, but also to realise how little this is: in every direction we seem to travel but a very short way before we are brought to a stop; our eyes are opened to see that our path is beset with doubts, and that even our best-made knowledge comes but too soon to an end. In every chapter arises problem after problem to beckon us on to farther investigation; yet this way and that we are so baffled by darkness and ignorance that to choose one of these problems for attack, one which is likely to repay his labour, is often beyond the scope of a junior candidate, of a candidate for the degree of M.B. for example; and it is not easy for me to help him, as I may help a candidate for M.D. The subject for M.B. and like junior exercises must be comparatively simple, the materials easily accessible, and the research straightforward. In

my own department, therefore, I usually advise the M.B. candidate to consult a member of the staff of his hospital, who will help him to some inquiry for which, in the current clinical or pathological work of the school, material happens to be at hand. I have gratefully to acknowledge the advice and guidance afforded to Cambridge students, in the preparation of their theses, by members of the staffs of large hospitals and laboratories elsewhere. For M.B. I accept subjects from any department of Medicine, including surgery and obstetrics; for M.D. topics definitely surgical, being proper rather for the M.C., are avoided.

In the course of the last few months of his work for the final examinations, the M.B. candidate will do well to ponder over two or three subjects; so that, the examination over, he may obtain approval of that one which seems most convenient, and set to work upon it without delay; thus in a few weeks his thesis may be completed. Some candidates get the subject approved and the work well forward before the final examination; so that by a successful candidate the Act may be kept forthwith. If the thesis be not ready, the degree of B.C., which is a 'double qualification,' can be taken, and registered; and the M.B. postponed till the Act can be kept.

For advanced students, such as the candidate for M.D., the undertaking is not so simple; such persons must enter upon a larger research, and one less dependent upon ordinary advantages: indeed, if out of residence, the candidate may have to

make his opportunities. Scientific methods—biological, chemical, or physical—are becoming longer and stricter; and, unless other occupation can be set aside, a year's work may scarcely suffice for the completion of a thesis. Hence it is of greater importance that the advanced student should be careful to select a fruitful subject, and to pursue it from the first on a right method. On these larger undertakings the advice of the Regius Professor and of teachers of special subjects in the University and other schools is more available.

For a candidate for M.D. who has entered into general practice, and who may have given such hostages to fortune that he must devote the best of his time to earning an income, the preparation of a thesis is not impossible; but it is difficult. Half-hours he would willingly give to rest must be devoted to work; methods of research, readily undertaken in a laboratory or clinical school, are now a heavy tax upon his ingenuity and his purse; processes which need continuous attention can hardly be carried forward; libraries may be far away, and apparatus costly or out of reach. Yet, in spite of such hardships, every now and then a candidate for M.D. emerges from general practice with a thesis which is but the more excellent for the self-denial and the high purpose which inspired it. Of late years, however, I have reminded graduates who intend to enter general practice, and yet would merit the M.D. degree, to proceed to these exercises as soon as the M.B. is attained—during, we may suppose, the tenure of some hospital

or laboratory appointment. We are willing to read theses and, in case of acceptance, to take the Act for M.D. at any date after M.B.; though of course the degree cannot be conferred till the due period is fulfilled. If, however, after his M.B. degree the candidate must enter upon general practice without delay, and yet would aim at the M.D., I advise him to make some notes, however brief, of every case, however trivial; to supply himself with some instruments of precision, according to his tastes and aptitudes; and for a few years to content himself with gathering clinical and other material, and keeping up his reading: thus in time a subject may shape itself in his mind. I heard it said lately of a very able physician in country practice that for thirty years he had scarcely ever failed to obtain a necropsy in his fatal cases. It is sad to think that the wisdom of an observer, so earnest as he must have been, should have died with him; what a thesis he might have written!

Twice or thrice we have received from physicians in country places a nosological survey of a certain district; the nature and incidence of disease being compared with the local peculiarities and variations of climate, soil, social habits, and the like. From the time of White of Selborne it has been the good custom of naturalists and antiquaries thus to examine the features and relics of particular places; by combining the records of many such observers we might in time put together a medical survey of the kingdom.

Title of a thesis.—From the title sent up for approval I am often able to form some notion of

the composition which will follow. A concise and pointed title preludes similar virtues in the essay; a weak or diffuse title, on the other hand, foreshadows a loose and vague argument. Or a title may be concise enough, yet not to the point; *e.g.* a candidate may suggest to me 'Three Cases of Pernicious Anæmia.' This title suggests no more than a report of the notes of the three cases; whereas the writer is probably aware that a mere collection of cases in any number, without comparison and argument, is unacceptable. Many titles, again, which give the indications of the argument well enough, are designed to comprehend too much, more than is necessary to denote the subject; or are too heavily loaded with technical terms. First impressions are strong impressions; a title ought therefore to be well studied, and to give, so far as its limits permit, a precise indication of what is to come.

After the title the writer may contemplate some *definitions*: but he will do well, especially in biology, to distinguish between technical, verbal, or historical definitions and attempts to define natural kinds. Even in astronomy to define a constellation would be no easy business; and, as the departments of science become more and more complex, definition is recognised as a scholastical task which makes for sterility. Classes we must create artificially, for the convenience of thinking; and of such classes we must give short descriptions: but we shall beware of taking short descriptions for definitions. On precision of thinking I cannot say too much, but to pack samples of thought in hard shells is to bury

thought alive. We must beware of taking provisional for radical distinctions.

Form.—The subject chosen, facts must be collected, inferences formulated, and the whole presented with due proportion in its several parts, and in language as nervous and lucid as the author can command. But, as strength and general dexterity do not suffice to make a cricketer, so knowledge and mental power do not suffice to make a writer. No one feels vexed that he cannot dance, paint, or ride to hounds without practice; yet men are apt to murmur that it is but the mere knack of writing, a knack with which, according to them and to Dogberry, some fellows are endowed by nature, which is wanting to make their learning and talents conspicuous. To those who have taken lifelong thought how to write, who have striven painfully with the craft of this supreme art, the view of it as a happy gift seems a flippancy. In critical jargon, indeed, the happiest word or phrase is called 'inevitable,' but it becomes inevitable when we have seen it; till then it is but too evitable. Let the candidate be assured that an easy and interesting style, like easy cricket, implies hard practice; the prose which in Swift, in Newman, in Froude, in Thackeray, runs so transparently that, to him whose eye is not set for it, the medium is unseen, comes of patience as enduring and training as exquisite as the more effulgent phrase of Sir Thomas Browne, Professor Ruskin, or De Quincey. No pieces are more 'spontaneous' than the Fables of La Fontaine, but the labour of correction and

revision which he gave to them seems to us almost incredible. Buffon, we are told, rewrote his prose twelve or fourteen times, and then would have it read aloud to him, that he might note where the reader hesitated. Gautier wrote at terrific speed, and, it is said, never revised. What is the consequence? Time has found out that his brilliant fantastic work has no solidity: that it is flamboyant, loaded, disorderly; and will not endure. To me, the most of whose work is done away from the desk, composition is painful; to few men busy in affairs can it be otherwise than painful: yet the man of science ought best to know that style and matter can no more be dissociated than skin and bone; that if we write clumsily, loosely, or disjointedly our thoughts are accordingly. In scientific prose words should be used as carefully as symbols in mathematics; there are few true synonyms in literature, none perhaps: words have not only their stem meanings, but carry upon them also many changes and tinctures of past uses which blend inevitably in our sentences. The word 'apostate,' for example, means far more than an absentee or a dissenter, and a muscle more than a little mouse; monks rarely live alone; your anecdote is anything but clandestine; rivals contend for other than water rights, and hypocrites are no longer confined to the theatre (p. 85). Yet no accomplished writer forgets the traditions of words, nor the incidental connotations thus clinging to them; nor that it is due to these evanescent features that, large as the common elements of two

words may be, no two are strictly synonymous. When to this we add the "genius of a whole language," we shall comprehend that even if translation of a work from one tongue into another may issue in a finer work of art, the pieces can never be even approximately identical. To translate *ῥητορική*, *ineptus*, *humanitas*, or *Dichtung*, is indeed impossible; and to translate *città* into *city* is an illustrative blunder. We have, then, to choose our words not only as we should choose mathematical symbols, or the parts of a diagram, but also as we should lay in tints for a picture, or mix quarries for a painted window. We shall be ashamed of the beggarly vocabularies (*vide* p. 89) which seem to satisfy most essayists; and not occupying ourselves with the flimsy and slatternly wares of the railway bookstalls but with the masters of prose, of our own time and of all time, we shall furnish our memories with a richer store of words and thoughts, and, by weighing and comparing them, educate our sense of their relative values.

In sketching the plan of a work, be it small or great, one of the first questions to put to ourselves is—For what readers is my treatise, paper, or pamphlet intended? This question we often fail to keep vividly before ourselves: we are apt to forget whom we are addressing; whether simple readers, learned readers, advanced students, a section of the public, or the general public. When full of his subject, an author may soar away from the apt and the convenient, and write so at large that the essay comes home to no one: for some it is

too much, for others too little, for others useless or alien.

Every writer has his own **method of composing**; I will describe that which I have found to answer well enough. For each subject on which I may have to write, I set apart a labelled drawer, or a large quarto envelope, and into it I throw the proper cuttings, slips, and references to books or papers. It is better to copy extracts at the time of discovery than, when at work, to have to fetch them, it may be from a distant library. Extracts and summaries in Year-books, and the like, must be accepted with caution; often they pervert the meaning, or are false to the context of the original essay. My slips are of the size of cheques, that is about eight inches by three; two inches of one end are left blank. I never make two entries on one slip, nor write on both sides of any. When I begin to write, these slips may have accumulated for years, and the first work is to parcel the subject into its several chapters, and to write the titles and numbers of these on similar slips of stouter paper. Next, having fixed a 'bulldog clip' upon each of these capital slips, I distribute under them the minor slips proper to each. The blank ends of the slips pass under the clip, so that no writing is concealed; and thus secured the slips are as easily fumbled as the leaves of a cheque-book. During this part of the work changes in the chapters, or in the number or order of them, often suggest themselves; some need division, some are merged in others.

The next task is to arrange the slips within each clip in logical order, when many obsolete notes are destroyed, others are blended and rewritten. From the slips thus arranged I write a hasty first draft of the article. I do not destroy each slip as it is used, but I draw a line across it and store it, lest it be wanted again. Round three sides of the manuscript a wide margin is left. The work may now be regarded as half done; I usually make four drafts at least before the manuscript is ready for the printer.

For the second draft I delete redundant words, phrases, sentences, and paragraphs; by doing this rigorously, and pulling the rest together, from one-sixth to one-fifth of this manuscript, or even more of it, disappears. Many sentences are but repetitions; others are got rid of by the insertion elsewhere of a minor clause, or of an adjective; thus:—

Other factors, such as rickets or tuberculosis, must be taken into account, as any one of these will have an adverse influence on the case.

Here 'adverse' should be inserted before 'factors,' and the sentence ended at 'account.' Remember the defence of a prolix report:—"I hadn't time to make it shorter." Transfers also are made now; sentences and paragraphs which would stand better elsewhere are translated. Again, excogitate matter and argument as we may before beginning to write, yet, as we write, thought develops, and may develop considerably; so the later part of the first draft proceeds on larger lines, and is fuller in

thought than the earlier part. In the second draft, therefore, the writer has to consider the earlier part in the light of the later, and has to remodel the narrower conception of this part on the broader conception proper to the whole. This is the toughest of the tasks of revision, for it may be necessary to break up and reconstruct the piece. As this first reading proceeds an index is easily jotted down ; if the work needs no index the list is nevertheless very convenient in making later insertions and corrections, and in detection of repetitions.

On the third draft the composition is submitted to a still closer revision ; but the main work of this stage is to recast paragraphs and sentences till they run logically, and bear but one meaning, and this inevitably : perverse constructions and equivocal or defective words give way to their betters. Ornamental and figurative passages also undergo purgation : in scientific papers purgation should generally go to expurgation ; yet our writing should be lively as well as true, and some happy allusions, if distilled to their essence, may be carried in upon an adjective, or upon a noun coloured by an apt association. An author should form the habit of setting down no word, not even the definite article, without weighing, less and less consciously as his habit grows, its primary meaning, its derivative meanings, and its colour in the particular context. From instant to instant he will turn each word over as shrewdly as a thrush turns a pebble. An intelligent friend of mine once exclaimed, " You don't mean to say one has to think on every word before one puts it

down?" Certainly; but by habit these appreciations become automatic, as swift judgment in a game or the mazy dance of a lacemaker's bobbins becomes automatic. When a distinguished physician proclaimed to us the other day without qualification that "The number of the infectious diseases is by no means complete," he had not formed this habit; for we may hope that he meant no more than our discrimination of such as we have.

If the writer has endeavoured to enrich his vocabulary, he will find that by the wider choice of words he will gain in truth as well as in liveliness; his expressions will become more and more apt; he will know, for instance, when to say 'begin,' when to say 'commence'; when to say 'theory,' when to say 'opinion,' 'notion,' 'conjecture,' or 'guess.' Or a sentence may be stuffed, like a bag, with valuable matter; yet unless the clauses run in the order of the thought, and by still subtler arrangement emphasise its main points and positions, the reader's attention will flag. Not only the clauses, then, but the words also must be placed exactly (p. 79); for emphasis, like a 'call' at whist, may be given by slight transpositions, even of single words (p. 127). It is deplorable that most writers, by ignoring the order of words and clauses, obfuscate their own meanings, blunt our insight into thought, and make for listlessness both in author and reader.

Before the final revision let some considerable time intervene—say a week or two at least; in order that meanwhile the mind may meditate

subconsciously on the subject, and that the final reading be done with refreshed attention; it is surprising with what new critical and constructive interest one comes again to a subject and to a manuscript which for a while have been laid aside. Moreover, before undertaking a critical re-perusal, provide for some leisure, so as to read not by bits, but over a good stretch of the manuscript at once, and to attain a large survey of its scope and bearings. Never compose when tired, nor in the false confidence of tea and late hours. At this hour the composition seems to be beautiful and spontaneous; but it is fairy gold, in the colder light of the morning it turns to ashes.

The logic of an essay.—Speaking generally, it is better to compose a scientific essay, and to construct its limbs, not on the inductive plan on which the research was pursued, but deductively. In investigation we step first upon the bottom facts; then we make short inferences, and test them by more facts; these inferences widen and widen, and in their turns are tested, and so on; such is the course of research: but as demonstration the system is not telling; the student is held too long in suspense (*vide* p. 59). This sentence I borrow from another use, as it may serve briefly to illustrate this advice:—

The Presbyterians threw their freedom down without casting one glance on the past at the feet of the most heartless tyrant.

This is the order in which the thought may well

have arisen in the excogitation. But we shall see how much better it is to alter the order of excogitation, and by a new synthesis to carry back 'without casting one glance at the past' to the beginning. It is better to begin, then, by setting forth certain more general views; and from these to proceed to closer and closer quarters with the particulars on which our position is to be established. Logic does not make matter, it arranges matter already gathered. I sometimes waste time in the futile wish that Epicurus' word 'Canonic' had superseded 'Logic'; for, clear our minds as we may, Logos does no doubt suggest the essence of things; but 'Canonic' suggests no more than rules of thought. Logic has always sought to "go into the merits" wherein it has no business to meddle. Logic is not all, nor nearly all. *La logique mène aux abîmes*. Language, like good manners, owes not its charm only but also its force and penetration to incalculable, imponderable elements. The line of the driest argument overflows logic in all directions, reason turns and doubles on itself; were it possible to photograph it in a flash, its course would appear not as a straight line, but as one of curves and zigzags; thus as it goes it falls under changing lights, and intimate metaphors creep in even unbidden. Moreover, an author cannot but be aware of his audience; he receives its influence into his fancy, and betrays his wariness by glances and stage asides. In the following sentence, plain as it is, we may note prospects opened and passed in flashes, quick doubles, and glints striking hither

and thither. Note the telling aside to the reader in the one ironical word 'usurping':—

A lay-papist will first consider his abbey-lands; . . . if zeal get the better of the law . . . his new humble confessor may be raised to a bishoprick, and from thence look down superciliously upon his patron, or which is worse, run to take possession for God Almighty of his abbey, in such manner as the usurping landlord shall hardly be admitted to be so much as a tenant to his own lands.

Again, in its tones and rhythms language plays upon us as the instrument of a musician (p. 137); beyond its melodies and its scores, it is attuned to us in an infinite sphere of 'wireless' vibrations, born partly of its own fibre, partly of the fibre of the master; these harmonies obey no formal call, and defy all reckonings.

Whether, then, we decide to arrange our matter inductively or deductively, the place of logic, or 'canonic,' is to see that the order and development of thought are followed precisely from step to step. As human minds are substantially alike, if the writer observes the best order of his own thought, the reader will take his line quickly and, for assent or dissent, perceive his drift.

Summaries.—On the completion of a long thesis, or important scientific essay, it is well to draw up a *syllabus of the argument* and to place it at the beginning; in any case let the conclusions be resumed succinctly at the end: it is not for the author to compel the reader to peruse his essay.

For students whose essays approach the field of letters an interesting discourse might be written

on the *beginnings and ends of books and essays*. Of ends authors of theses, and others, seem to be too careless; yet how telling a place is the end of a paper for a weighty reflexion, or summary view of the field. All writers, however, even the least skilful, are, in the degree of their skill, at some care how to begin. An unpractised writer, for sheer helplessness at the outset, may never begin; he may abandon his work in despair. A witty beginning is something of a liberty; for an emphatic beginning the reader is not yet attuned; nor is he attuned to a ponderous introduction. To begin naturally and interestingly is no mean art.

I was ever of opinion that the honest man who married and brought up a large family did more service than he who continued single and only talked of population.

Thus begins the *Vicar of Wakefield*, and what could be happier? The opening sentence touches the heart of the story; it is sententious, but its sentiment is instantly lightened by a ray of humour. Again:

As I walked through the wilderness of this world I lighted on a certain place where was a Denn; and I laid me down in that place to sleep: and as I slept I dreamed a Dream.

Here again the heart of the story is touched; and by the wilderness and the dream we are carried at once into the realm of the imagination. The opening chapter of *The Antiquary* is well known, I trust, to every one. Miss Austen's stories all open well; e.g.—

No one who had ever seen Catherine Morland in her infancy would have supposed her born to be an heroine ;

and so on. These are indeed romantic instances ; still, if we turn to scientific works, we shall find in the eminent of them the like art of beginning happily. The *Essay on Human Understanding* commences thus :

Since it is the understanding that sets man above the rest of sensible beings, and gives him all the advantage and dominion which he has over them, it is certainly a subject, even for its nobleness, worth our labour to inquire into.

The *Decline and Fall of the Roman Empire* commences with a short sentence :

In the second century of the Christian Aera, the empire of Rome comprehended the fairest part of the earth, and the most civilised portion of mankind.

Herschel begins the *Preliminary Discourse* with like propriety, if not with like distinction :

The situation of man on the globe he inhabits, and over which he has obtained the control, is in many respects exceedingly remarkable.

To turn from books to essays : Macaulay does not begin admirably ; he opens mouth like a watch-dog. Matthew Arnold is happier, as in the well-known opening of his essay on Keats :

Poetry, according to Milton's famous saying, should be 'simple, sensuous, impassioned.' No one can question the eminency in Keats's poetry of the quality of sensuousness.

Here, in spite of the three *y*'s, a fitting and lofty

note is struck at the outset. Or, opening by chance a volume of his *Causeuses*, I may translate the first sentence of Sainte-Beuve's essay on Jouffroy :

There is a generation which, born quite at the end of the last century, still in its infancy or immaturity under the Empire, came of age, and put on the robe of manhood in the midst of the storms of 1814 and 1815.

A fine opening by contrast to a study of that placid and limpid intelligence. All Bacon's essays open well, some magnificently.

But I may not multiply examples ; these will suggest to us how to open a subject aptly, intimately, and also with dignity or vivacity. We shall not begin with a crude or heavy lump of our matter, yet we shall try to touch the keynote of the subject, and to engage in the argument easily but directly. We have seen that the 'beginnings' of great writers are direct ; we shall not begin, then, with apologies, with wayward or fanciful approaches, nor with any kind of skirmishing. After these great examples, we shall try to give first some glimpse into the heart of the matter, to put the reader at our point of view, and then to lead him briskly into the subject. Hence the beginning is not to be written until we have so cast our argument that we can perceive the exact place whence the best glimpse of its purport is to be had. We may encourage those essayists who may fall so shy of the beginning as never to enter upon their work at all, by assuring them that it is not necessary to begin their essay till they have ended it.

Of ends I will only say, "Do not end anyhow"; let your leave-taking be easy, gracious, and impressive in proportion to the theme; not ponderous, pompous, epigrammatic, or austere. From a fine writer, one from whose works I might cull many admirable features, I will venture to quote the end of a book:

And this age of ours, if, like its predecessors, it can boast of something of which it is proud, would, could it read the future, doubtless find also much of which it would be ashamed.

A true, but rather unkind farewell! A charming essay by another hand ends with the reflexion that the 'argument in which we have been engaged is not addressed to all men . . .' but, in short, to the initiated reader. This is too fastidious a farewell; even querulous perhaps. After turning over a few scientific books lying near me in search of happier ends, I translate this from Daremberg's *History of the Medical Sciences*:

That which to-day makes the strength of the medical sciences, which assures their future destiny, is, if we reflect upon tradition and history, that all savants worthy of the name, from one end of the civilised world to the other, putting aside the rivalries of system, and shaking the dominion of routine authority whencesoever it may derive, seek each other and meet on the common ground of observation, experiment, and freedom of thought.

For literary essayists the end of Mackail's *Latin Literature* may serve as an example:

In the stately structure of that imperial language they embodied those qualities which make the Roman name most abidingly great — honour, temperate wisdom, humanity,

courtesy, magnanimity ; and the civilised world still returns to that fountain-head, and finds a second mother-tongue in the speech of Cicero and Virgil.

And, for my own sake, let me add the end of Colet's *Accidence*, surely one of the most touching farewells in literature :

Wherefore I praye you, al lytel babys, al lytel chyldren, lerne gladly. . . . Trustyng of this begynnyng that ye shal procede and growe to parfyte lyterature, and come at the last to be grete clarkes. And lyfte up your lytel whyte handes for me, whiche prayeth for you to God : to whom be all honour and glory. . . . Amen (*Lupton's Life*, p. 177).

These are notable examples ; ordinary papers and short treatises must end in modest proportion to their contents.

References.—After the summary of conclusions append a sufficient list of the books and papers consulted during the research : those which the author has personally consulted in the original, howsoever he were directed thither, he may enter as his own references ; when he has not gone himself to the source, he must enter and duly attribute the reference as a quotation. The writer who learns to verify his references will learn also the curious lesson that various readers see various meanings in the same words, or context ; a confusion due, in some part no doubt, to ambiguities of expression.

Not infrequently in the fourth draft of the essay such rehandling will suggest itself that another and yet another copy has to be made for the printer. Mr. Bryce tells us that Green made ten drafts of

the first chapter of *The Making of England*; Green who, of full and accurate writers, was one of the swiftest whose methods are known to us.

Dictation.—Many authors dictate their matter to a shorthand writer, who makes a fair copy for the author's revision. Personally I find this method very defective; and I fancy I note in other authors the defects of it. It saves much trouble, there is no doubt; and for temporary purposes, especially for addresses to be spoken, it is convenient. But the language of literature, both in scope and variety, is very different from that of conversation. As I was writing a sentence on a previous page of this essay I lacked a certain word, and the word did not come to me till the afternoon of the following day: what about the typewriter's patience? We do not always realise how lean and cursory a discourse may appear on the printed page which in conversation or public speech was telling enough. To write prattle, save for some light and ephemeral purpose, is as inept as to talk like a book. If the reader conceives that the felicitous narrative, or gossipy prose of Sterne, Elia, or Thackeray is but written talk, let him read a page or two, close the book, and try to reproduce it. In such prose the impression of unstudied ease is a product of the finest pains, of pains unknown to those who are prepared with the stuff but not with the art of letters (*vide* p. 63).

Anyhow will do!—But the 'practical man' will say that these are trivial or ingenious inventions; why all this torment of form if in any shape he can shovel the stuff he has to dispose of

into the reader's head? Well, in the first place a writer who writes to convince, and not merely to see his name in print, must learn to lay his mind alongside that of the reader. The reader must be carried along in a quick and equable current. It vexes him to have to return upon sentence after sentence in order to revise the author's particular meanings by the general tenor of his argument; yet in reading current prose this vexation is so continual that we scarcely realise the burden and tax of it. A sentence, as it stands, bears a certain meaning; the author, however, retorts testily, "Oh, you know I did not mean that": but he has written it; and it is not fair for an author to think in the rough, to scribble unchastened whatsoever comes into his head, so that, as Erasmus said, "Apollo only could discern his meaning," and to throw the control and revision upon the vigilance of the reader. For instance:—'It is our duty not to give hasty judgments till we have all the facts before us' (and then may we?). 'He abjured the errors of Protestantism to embrace those of Catholicism' (is this sarcasm or muddle?). 'This teaching if much longer denied threatens to be attended with disastrous results.' 'He complained of the information which was being kept from him.' 'Intemperance *predisposed to*, and *probably caused* this disease.' 'A child who has been in a cretinous condition for years will not improve to such an extent as one who has been detected early' (as if mere detection would do him good). In few theses, even of plain matter enough, have I not to prop up

mained or rickety conceptions, to dissect conventional phrases or equivocal words, and to sweep aside page after page of loose vesture which nowhere fits the thought closely, nor moves freely with it. A thinker who has grappled with his thoughts may write a burdened or too obscurely allusive style, especially if his subject matter be complex and recondite; but never anything so ungainly as this:

Eschatology naturally interests a region essentially connected with a theory of the conflict of good and evil powers.

In nature there is no great and small; the careful *precision*, even of a word, often so bites into the matter as to lead the author to revise or enlarge his thought; slovenly writing is not only for the most part slovenly thinking, but slovenly habits of expression corrode thought in its very substance. “*ἡ γὰρ τῶν λόγων κρίσις πολλῆς ἐστὶ πείρας τελευταῖον ἐπιγένημα.*” Professor Glover has said well, “The man who gives forth habitually what is immature falls into a habit of miscarriage.” For example, a schoolmaster wrote the other day, ‘Such a largely empiric science as educational theory,’ etc.—this is slovenly language because the thinking is slovenly. John Hunter, an illiterate genius clutching inarticulately at the evasive shadows of truth, commands our labour and our time; but are we to be delayed and tormented by the formless, halting, and tortuous essays of any laboratory worker, not oppressed by a transcendent range of insight, nor

by the remote or rugged nature of his matter, but content to dwell in sheer illiteracy, disorderliness, or shallowness? If through dimness of meaning the mind is led towards new, if vague, apprehensions, we are enticed to read the riddle: *veritatis tanquam umbram confectamur*; but an obscurity which begins and ends in confusion disgusts us. The seat among the immortals of letters prepared for Tennyson may be denied, for its ungainliness and its antics, to the more vivid and penetrating soul of Browning. Hunter felt as deeply as any of his disciples how heavy was the burden of his illiteracy, a burden, indeed, which has prevented the full recognition of his genius by posterity; but on the other hand we shall beware of a merely specious lucidity: Cicero did not say "Omne quod dilucide dicitur praeclare mihi dici videtur," but "Omne quod *de re bona* dilucide," etc. I wish I dare name some serious authors who have vogue in our day chiefly by virtue of a plausible style—for them I use the word 'style' gladly. Their pomp is not that of Gibbon, their complexity is not that of Acton, their sententiousness is not that of Thucydides or of Tacitus. Pomp may be pompousness, complexity entanglement, smoothness dulness, brevity baldness. Lady Welby has reminded us that "if new interests and new comprehensions enter into our work there must be effort; the previsional thinker must be obscure at first to him whose mind is bounded by past and present"; but at any rate let there be no ambiguity up to the place of taking off into the "noble dimness":

by repeated and instructed effort we may learn to set forth even new things with truth of scope and direction, if not with fulness of comprehension.

Not a few intelligent authors come to a standstill in their mental life because they do not train themselves to model and balance and clarify their ideas, their chapters, their sentences and their words: they have not been in the habit of asking themselves the exact quality of each word as they use it; how sentence is related to sentence, and paragraph to paragraph, each modifying the other, and yet each in due proportion and subordination to the main purpose. Few writers set themselves the questions, "Have I for myself thought all this out clearly, both in mass and in detail; or am I but echoing common notions and paying out makeshift phrases?" "Have I put my sentences so that the most careless or captious reader cannot nail down my words to any other meaning than that which, whether right or wrong, I intended and conceived?" "Have I done my reader the honour to suppose him capable of sustained thought, or have I written after the manner of the slipshod journalists who cater for the omnibus?" Slatternly writing may well be compared with careless and superficial laboratory methods, inaccurate references and controls, and imperfect notes of processes. By such methods smart or even pregnant ideas come to nothing. It is strange that scientific men, who habitually work in dimensions of a ten-thousandth of an inch, are either blind to gross confusions of

argument, and to false refractions of meaning, or regard them with indifference.

By disorderly writing, then, we fall into worse things than muddle: we blunt the probity of our minds; we slur over difficulties and cover up ignorances. Content to be slovens, we lose our respect for truth, and blunt our consciences. On the other hand, when in an author's prose we perceive unobtrusive scruples, and feel that his conscience is tender for the rightness of things, we are disposed to give him credit in greater issues for the rectitude which he exhibits in the less (*vide* p. 129).

Is it then for sheer incompetence that authors are thus apt to write what they do not mean; to lose sight of the difference between purpose and purport? Not altogether; we are apt no doubt to be too readily satisfied with a foggy context, but we are apt also to qualify our words to ourselves by our private mental habits, bias and prepossessions; by elements, many of them indeed true and proper enough, of which we casually think but do not bring explicitly into view. Spontaneity is good; but the art of writing is to be deliberate while seeming spontaneous (pp. 8, 9). How is the reader to pick up the author's clues, to interpret a context by his idiosyncrasy, to fill up an argument by his latent provisions? The reader has to accept, and ought to accept, what is expressed, and to import no more; or the argument will be adulterated by yet another batch of elusive apprehensions, idiosyncrasies, and prepossessions.

Again, the author who does not try to make

his meaning clear and unequivocal will suffer in neglect for his carelessness. A friend asked me why his really good work is neglected? I know, but I cannot tell him; it is because he writes so ill that other and often less able authors, who respect their reader, get the credit. In a recent review of a very important book by a very important person I read as follows:—"Nevertheless there is such inextricable jumble of etiology, pathology, symptoms, treatment and prognosis, that it would be quite impossible for a reader to obtain information on a particular point without perusal of the whole section. . . . Professor X. has undoubted powers and a high reputation . . . but as a writer of books his want of method and system clearly condemns him." And serve him right: others will take the credit. Take pains, therefore; with yourself first, then with your reader.

Formalism.—Persons of taste and scholarship are heard to say that to cherish the language, to be jealous of its privileges, to ordain its decrees, to husband its wealth, and to look askance at its ephemeral accretions, is to substitute a mechanical for a natural growth, and to bring about not development but formalism and stagnation. We must remember, however, that, if wild growth be good for young organisms, in maturity exuberance must give way to a more deliberately chastened and discriminating economy. In the child untamed expansion, or even extravagance, may be wholesome or winsome; in the discipline of the adolescent some taking of thought, some austerity of

rule, must enter consciously into our methods. Grammarians who think that to write anyhow is to leave language free for spontaneous growth, are forgetful of the truth that conscious processes of development must enter into the advance of a mature language as they enter into the growth of mature nations and individuals. The phase of 'absent-minded beggar'-dom is not a phase of maturity, and to continue in this state is to carry the child into manhood. To foster development on conscious lines needs, among other things, the 'historical sense,' whereby we discriminate the changes which lie in the lines of growth from those which are features of degeneration or reversion. For example, if ethics in Russia, America, France, or England be in a welter, whether in any one of them it be the chaos which precedes development, or the wreckage of corruption, we shall know largely, mainly perhaps, by the historical sense. So with language; at our age we must open our eyes to know the strife of fruitfulness from the confusion of decay.

Indifferently to let our language shuffle along as it may is not always to draw new and racy elements from the children of nature; often it is to abandon it to a respectable populace craving for coarse stimulants and factitious vehemence; and this makes not for development, but for extravagance and exhaustion; not for directness, simplicity, and touch with nature, but for meretriciousness and sophistry. But to the subject of new words and slang I shall return presently (*vide* p. 35).

What are, then, *the marks of growth or of decay*, of deterioration or of enrichment, of living as contrasted with morbid changes? Do we see the marks of the one or of the other in our own language? do good and fertile words suffer neglect or degradation, grow sterile or empty of significance? This is too large an inquiry for this place, but some part of it we must consider. One of the well-recognised features of development is differentiation, the elaboration of several parts for specific ends; as, on the other hand, a blurring of specific quality and a confusion of parts in a common function are marks of rudiment or retrogression. Now, in language can we note such tendencies, and if so whither do they tend? If we find that in a love of excess, or of coarse stimulants, the biggest word to be had is to be used for ordinary, or not very extraordinary, occasions; and if thus many words which had gained finer shades of meaning are worn down again into indifference; if, for instance, every mishap is a 'disaster,' every guess or opinion a 'theory'; if I write cursorily to a friend that I am 'anxious' to see him; is it progress or deterioration? We have seen (p. 10) that in English there are few synonyms or none; that between every pair of approximate words there is a difference: the more, then, the variety of the words of a language the higher its development and the richer its resources; the more the reversion of words once differentiated the deeper its backsliding towards mean or rudimentary phases. But to gain and to keep a wealth of differentiated parts are largely matters

of tact and vigilance ; that is, of literary culture and discernment : and the no less certain defects of these qualities, the dangers of finicking and preciosity, or of over-sophistical wit, are not to deter us from thoughtful appreciations. Pedantry signifies not precision and nicety but a defective sense of relative values, and a stationary if acquisitive mind. Precision and nicety are not against simplicity but for it ; they make for the shortest way and the least expenditure. Finicking and preciosity, on the other hand, are an otiose labour of saying common things in uncommon ways :—*e.g.* the dirt of the purlieu ‘brought a scum to the eyes and a tetter to the houses’ ;—whereas, as Canon Ainger said, the mark of a great writer is to say uncommon things in common ways.

A manly stile, fitted to manly eares
Best ‘grees with wit ; not that which goes so gay,
And commonly the gawdy liv’ry weares
Of nice corruptions, which the times do sway.

Speaking generally, the greater the mere dexterity, the more obviously cunning the detail, the lower the art. A broad and summary handling, if as unerring as in the later works of the greatest artists, of Rembrandt, for example, or Hals or Velasquez, is incomparably finer than niggling ; yet this breadth is not attained by spurious ease or vaunting brush : a study of the earlier work of the great masters of light and line will reveal the indefatigable choice of vital accent through which this breadth was painfully won. It is not by over-curious trimming, then, that force and

precision are attained, but by masterful selection from the store of many harvests.

Gaudiness.—Young authors are prone to eccentricity and finery of style. An unchastened love for letters, welcome as it is in the young, is readily caught by uncommon words and phrases, as a girl is attracted by gauds; so it is that in the essays of young authors we note violent metaphors, dashing phrases, archaisms, odd spellings, slang, split infinitives, and such tinsel; and the clever young men turn upon us with the exclamation—Why should I not stick these gems, old or new, into my writing if I think them effective? Because, young man, you may not paint and patch your mother's cheeks. Dauber as you are; go down on your knees before your noble inheritance—the noblest speech that the world has seen: when you have known its loveliness, when your ears have opened to its melodies, when you have counted but a little of its riches, you will shudder as at the thought of retouching a masterpiece. It is true that language is a living thing, that if it congeal it will die; but before you are to take in hand to enrich the rich, to paint the lily, you must reckon its wealth, and feel its magic of form and harmony. Then you may, but you will not, write of 'going without saying' (for 'speaks for itself'), 'leaping at the eyes,' 'giving furiously to think,' 'playing rôles,' 'giving on the street,' bringing a matter 'sur le tapis' (or, far worse, 'on the carpet'), prefixing 'forewords,' and the rest of it: tricks which are as ungainly as they are profane. The inlay of a foreign or affected word

or phrase is not to be justified by saying that it is good French, German, or Latin. One may dress on occasion in a foreign or national costume, but in Pall Mall to wear a black cock's plume in a silk hat would look merely odd. In the words of Boyle: "It is not the use but the affectation of exotic terms which is unworthy of a philosopher" (*vide* p. 126, l. 22).

Some persons affect oddity as a pretence of liberty or character. Character it may suggest, but let the actor be sure that the character is worth suggesting; even Sterne did not make all his oddities appear lovely. In respect of liberty, indeed, the bargain is often a bad one; to emerge from the cover of convention is to attract the public eye, and if the eye is to be attracted the performance must be faultless. In prose, as in dress and in manners, there are conventions. To dress in peach-blossom may be well, and to write in peach-blossom may be well when the meaning is rare; but much good prose has to travel over the plains, and plain things are best said in a plain way. Not even the talent of Mr. Pater succeeded in making the peach-blossom style generally delightful. Fine or big words, or an unusual order should be held in reserve for moments of emphasis (p. 128); to seek on tiptoe for every word, as in the first quotation on p. 32, and so to make paragraphs all emphasis, grows wearisome.

Again, such a sentence as this, 'Multiradial apocentricities lie at the root of many of the phenomena that have been grouped under the

designation of *Convergence*’ was quoted in *Nature* with the just comment that the first clause merely repeats the idea of the second in a more cumbrous form. So it is also with this sentence, ‘The process of parakeratosis is an irregular cornification.’ Scientific writers are too apt to suppose that restatement in bigger words is explanation.

Yet I would be no purist in language; language is no doubt a living thing in its way, and too often it is the cultured class which would arrest its growth. I would not resent the invasion even of *slang*; at worst it saves us from the too abstract (p. 134). Some slang words make their way generation by generation into our tongue, and increase its wealth; but we must not use a new word until we are satisfied that no word better, or as good, exists in the language; for generally the lack lies not in the language but in the resources of the innovator. However, a century ago ‘mob,’ ‘sham,’ ‘banter’ were slang. ‘Crest-fallen’ in the days of cock-fighters was slang; and ‘handicap’ we meet now far away from the race-course. ‘Discard’ and ‘pell-mell,’ which had a like origin, have been good English for three centuries; and from cards ‘to go one better’ is now coming in. The word ‘fad’ and its congeners are useful novelties, because ‘crotchet,’ ‘craze,’ or ‘hobby’ scarcely express the same meaning. ‘Bluff’ now moves in the highest circles. ‘Fluke’ is certainly a gain to us, and I see (O.D.) that Mr. Bain has used it. ‘Byke’ is no ‘uglier’ to me than ‘like’ or ‘strike,’ nor more uncouth than ‘squad’; a new

word was wanted for a new thing, and the *k* sound is not only the original sound but also spares us an increase of the excessive hisses of the English tongue. 'Scientist' seems to me as proper a word as 'artist,' and a better word than, say, 'orientalist.' To 'shunt' is not quite represented by any older verb; and 'boycott' we could ill spare. 'To endorse,' 'to discount,' and 'to take stock,' although they come of the children of Mammon, are serviceable. I see no more objection to 'Bartlemy's,' or even to 'Bart's,' than I do to 'Bedlam' or 'Maudlin.' 'Employee,' when the idle accent has dropped off, will be as good as 'trustee' or 'committee.'

Slang or exotic phrase, then, is mischievous when it leads to the neglect or degradation of something richer or choicer. Before we pick up smart words or exotic words, we are to see that we have none better in our possession. For instance; 'rôle' is inferior to 'part,' for 'rôle' takes us back to a dried sheepskin, whereas to play a part is to be engaged in the drama itself: 'part' is a *ῥῆμα πράγματος*. 'Summary' is at least as good as 'résumé'; and 'dernier ressort' has no advantage over 'last resort.' 'Raison d'être,' 'tout ensemble,' 'cortège,' 'par excellence,' etc., etc., give us nothing that we have not of our own. 'Taboo' is generally used incorrectly, and in this common use is no better than 'ban.' There is no virtue in the barbarous 'cavitation' which is not in the civiller word 'excavation.' To 'exteriorise' is no better than 'utter'; nor 'centrifugalisation' than 'spinning.' 'Standardisation' is a grievous vocable; I fear we are in for it, but let

it serve as a warning! 'Plucky' is a meaner word than 'bold,' 'daring,' or 'staunch'; and is unnecessary. Hospital slang must be regarded with particular suspicion; such *e.g.* as 'back pressure' in cardiac disease (for 'high pressure'—the pressure of fluids being equal in all directions, in health and disease); 'the operation had no return'; 'give him something to make his heart compensate properly,' and so on. In describing the diagnosis of obscure mental disease it is unseemly to write of the patient that 'you try all you know to make him give himself away'; for on paper at any rate it looks a little heartless as well as vulgar. 'Potatoes were forbidden' is as easy to write as 'potatoes were knocked off,' etc., etc. It is remarkable, indeed, how little hospital slang has contributed to the life, precision, or lucidity of medical discourses. It seems to be bred not of nature and spontaneity, but of gregarious shallowness and dowdiness, and to be as faulty in significance as in fashion it is vapid and slipshod.

The recall of *obsolescent words* is a delicate matter. Custom is our chief guide in language, no doubt; but whose custom?—the custom of the illiterate, the custom of the pedant, the custom of the educated man of the world, the custom of the poet, the custom of the elegant essayist? Words which to the illiterate are obsolescent, to the cultivated writer are familiar enough. For instance, to the journalist the word 'opinion' is almost obsolete; he abases the word 'theory' to take its place. An antiquary, as he tells us, has a 'theory'

that a certain coin is of Constantine ; in the next paragraph he himself has a 'theory' that a burglar climbed over the garden wall and let himself in by the cellar window ; in the next a 'theory' that the leader of the opposite political party talks nonsense ; and so on (*vide* p. 93). We, who shrink from pedantry, scarcely venture nowadays to speak of 'opinions' or 'notions,' or to keep 'theory' for higher uses. Words, then, are wasted, blurred, abused, or lost : but at what point does a word die ? at what stage of its neglect or evanescence have we to reconcile ourselves to its loss ? Generation after generation men of letters have extended the range and the riches of our tongue, and have conferred precision and distinction upon the words of it : are we to relinquish many of these, significant as they may be, because the man in the street has forgotten them ? or many meanings of them because the coarser and shallower notions of the many have no need of their refinements ? Nay, shall we not try stealthily to restore to life some inanimate words which cannot well be spared ?

Multa renascentur quæ jam cecidere, cadentque
Quæ nunc sunt in honore vocabula.

Hor. *Ars P.* 71.

In this matter much must be left to the tact of the writer ; but let us all have a care to see our thoughts and things clearly, definitely, and as it were objectively, as an artist sees the lines and values of natural objects ; and to furnish our memory with all and any words and means of expression which may represent them intimately and vigorously.

Surely none of us has a more intimate sense of the finer edges and sinuosities of nature than the student of natural science, yet in the sense of balance, of renunciation, of relative values, he often fails. Nevertheless, in the chemistry of nature, as in other spheres, it is true that

The little more, and how much it is !
And the little less, and what worlds away !

In conclusion, let us remember that the function of concise and lucid prose is not only a function of a writer and a reader, full and just as this immediate relation may be ; it is by the sum of these intimate relations that truths of thought and idea are broadly established. Yet how is truth to be broadly built if the several conversations of writers and readers be vague, or shallow, or crooked, or fastidious, or insincere ? Vivacity, curiosity, versatility, adroitness may be well enough, or they may be as the crackling of thorns. Let us admire the hand of Time which, dissipating the vain and perverted in culture, disengages and purifies its deeper and sincerer elements : when Time is on its side work becomes classical ; if "*quod ubique quod ad omnibus*" be fallacious for the day, for Time it is sure.

CHAPTER II

ON COMPOSITION

THE Greek and medieval schools did us priceless service in creating strong, flexible, and fitting words and phrases for the expression of general ideas, of definite propositions, and of subtle distinctions. For the verification of premises the elder Greeks had not time to do much, and the younger Greek and the medieval schools had a different task to perform; namely, to block out the schemes of larger and more stable societies. Heresy was damnable because it mined the foundations on which a greater society was to be built; so the unquenchable faculties of analysis were to be turned, not upon the foundation, but upon the superstructure of Christendom. Thus every feature of logic and language was wrought, fretted, and chiselled into fantasy; but thus the tools were perfected, and the craft was learned. To-day, in his new heat for digging and exploring foundations, the laboratorian is forgetting this art by which his new ideas, when they come, are to be constructed and signified; to quote Lady Welby again, he is forgetting that "language is the most precious of the tools of humanity." By the experimental method he

has won a world of facts, no doubt, but he is slow to perceive that, without sure reason, facts are dross; and that, if he has not lost the fine instrument of reason which his fathers had made for him, he has allowed it to rust (*vide* pp. 93-106). So subtle argument he resents as pettifogging; as if the subtlest reason were any match for the infinite elusiveness of nature! Pedantry, as I have said, consists not in subtlety, nor even in a show of subtlety without its substance; at its emptiest this chiselling of language into its finest lines is useful as a multiplication and explication of its resources; pedantry consists in the use of a plastic and various medium, without a sense of relative values. To write 'Heremites' or 'Vergil,' or 'the trauma is now healed,' is pedantic because the sense of values is lost. Grammar is not pedantry; mathematics is not pedantry; military manœuvres are not pedantry; but pedantry it is to take grammar for literature, mathematics for physics, or manœuvres for war. So, that dialectic is neither knowledge nor common sense, none knew better than Plato; none knew better than he that literary form is not itself literature: but Plato knew that through form and dialectic lies the way not to materials, but to build materials into knowledge and beauty. In the followers of Flaubert or Stevenson, for example, who work for form without stuff, nay, even in Flaubert himself, as his matter failed and manner predominated, literature is not; on the other hand, many a modern scientific treatise contains but undressed materials of knowledge. Stuff is better than style, yet bricks and mortar are not a house.

To talk of Newman's marvellous 'style,' as to talk of 'incomparable Janes,' has become a commonplace of 'culture'; and in Newman we may admire the crafty use of subtleties of meaning and distinction which he had learned by conversation with medieval schools of thought: but for him who has read Newman thoughtfully, his symmetry and subtlety are diminished by the defective illumination of his mind, which was as that of the moon, shining on one side, on the other dark for ever. We may well try to imitate the suppleness and sinewy articulation of Newman's argument; but we must try also to adapt and develop it for the far larger purport of the modern knowledge and thought of which Newman was ignorant and even unwitting.

The short notes on composition, which I propose now to give, have no pretensions to unity or completion, nor even to system; they are no more than occasional counsels and criticisms, such as my perusal of academic essays has suggested to me. In them certain faults prevail, and certain defects are generally conspicuous; to these I shall confine myself. They fall conveniently under such heads as grammar; order of periods, sentences, and words; misuse of words; emphasis; tautology; metaphor; stops; and into some minor sections.

Grammar.—English grammar is simple, and its rules are few; but, were it otherwise, I could not occupy myself with elementary education. Against some current faults, however, even in grammar, the student must be admonished.

Misuse of relative pronouns is still too frequent

to be excused. The pronouns, says M. Bréal, are the most mobile things in language—"ils voyagent perpetuellement." Here is an example from a recent thesis :

He said to *his* patient that if *he* did not feel better, *he* thought *he* had better return to say how *he* was.

This is an unusually fine specimen, no doubt; but minor ambiguities of the kind are abundant. A well-known critic writes :

Even Shakespeare's imagination was not fired by Augustus, and *his* Julius was inclined to rant and only inspired *him* to great verse after *he* was murdered.

A celebrated passage of Jeremy Taylor is marred by a fallacious pronoun :

Where our kings have been crowned their ancestors lie interred, and *they* (ancestors ?) must walk over *their* grand-sire's head to take his crown.

He is a bold man who tampers with the great Bishop of Down, but would not the sentence have run even more finely had it opened—'Where their ancestors lie interred, our kings have been crowned,' etc., etc.? Perhaps the most frequent of these ambiguities is the occurrence of 'it' after two or three antecedents, the reference, likely enough, being not to the last of them. This sentence is taken from a considerable author and good scholar :

Show the governing faculty of reason a contradiction, and *it* will renounce *it* (renounce what ?); but till you have shown *it*, blame rather yourself than him who is unconvinced.

Here the first 'it' seems to stand for 'reason' (though related to 'contradiction'); the second 'it' must mean a proposition of the unconvinced person; the third 'it' refers, no doubt, to 'contradiction.'

On the revision of a manuscript, pause at every such pronoun till you are sure that its particular antecedent is unmistakable. Remember the well-known example:

No one yet had demonstrated the structure of the human kidneys, Vesalius having examined *them* only in dogs.

(Human kidneys in dogs!)

The following example of the vague pronoun cannot be cited as a grammatical error:

Then A. B. came up, and said *he* wanted to talk to C. D. about a certain matter which *he* might like to know.

(This sentence is from the pen of a master of prose, who might defend it; the former 'he' duly refers, no doubt, to its antecedent A. B., and the second duly to its antecedent C. D.: still the construction is far from lucid.)

False nominative relations are not confined to pronouns; *e.g.*

Of all diseases none are (is) more difficult than *the study of* appendicitis.

Here study becomes a disease.

The neutral or indefinite pronoun 'one' should be used sparingly in English; 'one says,' 'one does' are good French or good German, but, if used indifferently, are not good English. I say "if used

indifferently," because there are occasions when the indefinite pronoun has its point, as in this borrowed example: 'One may well be afraid when the lions roar'; here, while the concrete and personal element of fear is retained (which 'a lion's roar is fearful' does not retain), cowardice is considerably distributed. But in 'One opens a vein at once,' there is no such gain; write 'A vein must be opened'; or, if a personal opinion be appropriate, 'I open a vein at once.' The use of 'you' and 'yours' as indefinite pronouns is generally vulgar, and not rarely unpleasant; *e.g.* when a student reads to me, '*You* may then get secondary deposits of cancer in *your* liver,' I resent the suggestion. To write 'In Graves' disease *you* get a fine tremor of *your* hands'; or '*You* cannot rush *your* patient straight into a diabetic diet, as *they* cannot stand it,' is as vulgar as Bottom's 'I could munch *your* good dry oats' without his humour. Yet for particular effects even this use may be kept in reserve; for instance, in '*Your* worm is *your* only emperor for diet' the poet purposely conveys a touch of kin.

The following sentence, culled two or three years ago from one of our theses, is, I admit, a 'record' example:

Then *I* should advise putting *your* feet into hot water, when *he* will feel a gentle perspiration breaking out, and next morning *one* will feel the cold passing off.

Even in more careful writers the pronoun 'one' is sometimes followed later in the sentence or paragraph by 'we,' 'your,' etc.

I note that an indirect construction is often used to avoid the little word 'I' (*vide* p. 56). It would seem that an impression is abroad among the writers of academic essays that the first person is indecent. No doubt, as in our manners generally, self must be intruded with tact; we must intrude, that is, just so much of one's self as the reader is attuned to, and no more. Authors such as Montaigne, or Lamb, or even Pepys, can attune their readers to a long and intimate personal converse which in authors of smaller gifts would be tiresome or offensive. In lyric poetry the self of the poet is of its essence; if the poet's self is uninteresting his poem expires. The knowing persons who write the news and gossip of the town for certain journals give us a little more of the complacent 'I' than, let us say, a Greek sense of the *τὸ πρέπον* would approve; but of the reader of a thesis, or other such paper, it is expected that he speak in due measure of himself—of his own work and his own opinions; and persistently to evade the first person singular is in him affectation. Egoism may lurk even in impersonality.

The hanging participle.—A participial clause is often concise and effective, as in this, 'What woman, having ten pieces of silver, if she lose one piece,' etc.; but it is a very common fault to leave a participle 'hanging'; that is, without a subject: *e.g.* 'Referring to your letter of yesterday Mr. Jones has seen the applicant,' etc. To whom does 'referring' apply?—to Mr. Jones or to nobody? Again, 'My thesis was half written, having consulted Professor

Wilkinson as to the subject.' Did the thesis consult the Professor? 'Complaining of shortness of breath the nurse lifted her into bed' (*i.e.* the nurse complained?). So in these again, 'Looking back on the affair the mistake seems to have been,' etc.; or, 'Preaching in chapel an old woman said to him' (which of them was preaching?). 'These I have, having bought them,' etc., is correct; but 'These are in my possession, having bought them' is incorrect. In 'The bullet indented the coin, thus saving his life,' 'saving' duly follows the antecedent 'coin'; but the hanging participle may seem to refer to the bullet, so that we have, as the French say, the *construction louche* (squinting construction). Thus, again, 'Without translating, gentlemen must not talk Latin, nor smoke, nor swear, in the presence of ladies' for—In the presence of ladies gentlemen must not talk Latin without translating, nor smoke, nor swear. 'This had no effect on the old hospital remaining free from disease' is as perverse a use of the present participle as it is bewildering as a proposition. When the participle changes the tense of the sentence there is a double error or ambiguity; *e.g.* 'All attempts at cure, such as killing the parasite in the lungs, were in vain.' I have chosen a dubious instance, as 'killing' may be called a noun substantive; yet the construction is awkward, and such elliptical phrases used without vigilance are apt to lead to *louche* constructions. The following: 'I discussed a series of cases occurring (which occurred) in this hospital'; 'Mr. Robinson was twice married, his first wife dying

in 18—he married again,’ etc.; ‘He ran up the hill, and arriving at the top (as he arrived) fainted’; ‘I intend doing’ (to do); ‘to which I propose alluding’ (to allude); ‘we are contemplating walking back,’ etc., etc., are inadmissible. When a participle is used absolutely in English the case is the nominative; *e.g.* we do not say ‘him only expected,’ but ‘he only.’ But it is not for frequent use.

The double passive is a clumsy mode of speech, and in many cases hazy in meaning. Why do we say ‘it has ceased to be maintained’ (for ‘it is maintained no longer’); ‘were considered to be produced by’ (for ‘were attributed to’); ‘the spleen was unable to be felt,’ or ‘it may not be able to be made out’; ‘a frothy fluid would be able to be squeezed out’; ‘the box was not allowed to be opened’; ‘no doubt it will be able to be got rid of’—the endeavour to grasp the notion of this last sentence turns one almost giddy. In an article before me I read ‘It ought to be insisted upon that cretins are educated’ (the writer meant the contrary, viz. that they are not educated, and that their education should be insisted upon).

Transitive and intransitive verbs: *e.g.* ‘The patient quiets down.’—There is no authority worth mentioning for this use of the verb; nor is it needed. Transitive verbs in the passive become intransitive; *e.g.* in ‘I will bleed him’ the verb is transitive; in ‘he was bled’ it is not transitive, nor can it be made so. Even in the active some verbs, as ‘to give,’ become transitive only by means of the preposition ‘to’: *e.g.* ‘I will

give to him'; but to write 'The patient *was given* a rhubarb pill' is bad; and gratuitously bad, for we can say as readily that 'a rhubarb pill was given to him.' For 'The remedy should be given a thorough trial' read 'should be well tried.' The following are common instances of a like solecism: 'I will write you to-morrow.' 'Her Majesty *was pointed out* the site of the memorial.' 'We *were shown* the insect under a lens.' 'In the photograph the eruption does not *show*.'

Past Tenses and Perfect Participles.—Of some verbs the past tenses and perfect participles are often confused: e.g. 'The bone was broke' (broken). 'I had scarcely began when he begun' (a double error). 'He drunk (drank) the mixture.' 'The rags must be burnt' (burned). 'I learned (learnt) by experience.'

The Subjunctive mood is falling into disuse; but is still effective for grave or emphatic doubt. 'If,' however, often means 'seeing that,' when no doubt is assumed, and the subjunctive would be incorrect.

False Concords.—These are relatively few, but they happen occasionally: e.g. 'The shame and pain to which his *failure* expose him.' 'Nothing but his poverty, modesty, and diffidence prevent' (prevents). 'The *ideas* he had gained *was* his chief concern.' In a certain fine passage we read 'Their instrument was the human heart, their harmonies those of the human affections' (insert *were* after 'harmonies'). 'The professor with his friend and his pupil *were*' (was). 'Man after man *were* (was) caught in the ambush.' 'The severity of the symptoms *were* such,' etc. 'Policy

as well as *fashion dictate* (dictates). 'Gout as well as glycosuria *were* (was) present.' 'Neither the one nor the other *were* (was) there.' 'The outline of the breastbone is altered, as *are* also some of the ribs' (for 'as is also that of some of the ribs'). Even in careful writing a false concord will creep in furtively sometimes; as *e.g.* 'My intentions were good, but my perseverance faulty' (my perseverance *were*). 'His gait is reeling and his steps (are) irregular.' 'The outline was blurred and the details (were) indistinct.' Or again, 'The complexion *is* pallid, the forehead wrinkled, the nose depressed, and the lips thick and everted'; here 'and' should be transferred to the previous clause, a semicolon put after 'depressed,' and *are* inserted between 'lips' and 'thick.'

I will accumulate examples here of other false concords, as these minor errors are frequent: '*Neither* of these boys *were* (was) remarkable,' etc. '*Nobody* ever put so much of *themselves* into *their* work.' 'Of these persons none (no one) *were* (was) robust.' 'Now none of these things *were* (was) there.' How far more effective is the singular verb after 'none'!

Some correct writers put a plural verb after a singular noun which, by the qualification of two or more kinds of adjective, is put to mean various things: *e.g.* 'Vocal and instrumental music are provided.' Conversely, a singular verb may be defended if governed by two nominatives so closely related as to be one: *e.g.* 'Praise and glory surrounds his throne,' by which artifice praise and

glory become essentially united. So also 'Regression and progression exists when we breed from variants,' is defensible and effective; as thus the intimacy of the two aspects of change is signified.

A relative pronoun may determine the number of the verb: *e.g.* 'One of the most valuable *books that have* appeared' is correct, for 'that' relates to 'books,' not to 'one.' 'This *was* one of the first objects *that were* found' is correct likewise. 'I am one of those who are unable to refuse my assent' is correct as to *are*; but consequently 'my' should have been omitted.

Tenses are not to be changed in the same sense: *e.g.* 'The leaves *were* dry and brown, and under the microscope there *is* seen,' etc.

Whose — is conveniently and quite correctly applied to things as well as to persons.

Cases.—Errors in cases are few and venial; but I find in a thesis before me, 'The patient did not know *who* to speak to.' Such phrases as 'Do you mind *me* seeing them'; and 'I heard of him (his) running away' are not to be excused, even in speech.

Than as a conjunction does not govern a case. 'I know you are wiser *than me*' should be 'than I' (am). Avoid such an uncomfortable ambiguity as this, 'Antony was not less desirous of destroying the conspirators than his officers.'

The '*and which*' and '*and who*' blunders are by no means yet extinct: *e.g.* 'These scenes painful to witness, *and which* did no good'; where '*and*,' of course, is intrusive: omit it, or write 'Scenes

which were painful to witness and were,' etc. Again: 'A man working in the field, *and* who ran forward,' etc. The 'whom blunder' may be mentioned here: 'The two persons *whom* he thought were far away.' 'Mr. Jones *whom* I trusted would have helped me' (in both instances read *who*).

That.—Keep down your 'thats'; for they multiply like lower organisms: *e.g.* 'He told me *that* he told you *that* you were to see *that* all was in order,' etc.; 'I cannot suppose (*that*) you mean *that* the dog saw the rabbit and (*that* he) ran away from it.' 'That' is often improperly intruded: *e.g.* 'Whether the one had expanded, or (*that*) the other had shrunk,' etc. ('To' is likewise very prolific.)

'*This*' and '*That*'.—When two subjects are mentioned *this* refers to the latter and *that* to the former, a good and efficient rule often transgressed: *e.g.* we write correctly 'The patient suffered from nephritis and pleurisy; *that* the physician observed, *this* he overlooked.' 'After writing the life of X. the author undertook a history of the period; the first volume of *that* (*this*) history has now appeared.' By the pronoun 'that' the reader, to his confusion, is referred to the life of X. When but one subject precedes the pronoun, *this* is to be preferred: *e.g.* 'Moreover he was accused of partiality, *this* he denied.' Not uncommonly a paragraph begins with a vague 'This': *e.g.* 'This being so,' etc., etc., where 'this' may indicate any one of several antecedents or the sum of them, without definite distinction.

Do not insert *how* after *when*: *e.g.* 'When it is considered (*how*) that,' etc.

Beware of *the intrusive not*: *e.g.* 'I ran to see if I could (not) get a seat.' 'Let us see if we can (not) help him.' 'I cannot say what disease she may (not) have.' 'Mr. Jones asked if both lungs might (not) be diseased.' 'We should consider whether this may (not) be a case of infection.' A recent gazette contained an inquiry whether a certain title might (not) be conferred. On the other hand, 'not' is often in error omitted: *e.g.* 'He depended on me no more than he could help' is, strictly speaking, nonsense; if this form is to be used, *not* is required before 'help.' 'I doubt whether the reverse be *not* the case' is a common and bad form for, 'I suspect the contrary to be true.'

Genitive.—Ought we to write 'I heard it in a speech of Mr. Gladstone's (or of Mr. Gladstone)'? is a question often asked of me. 'Gladstone's' may be regarded as an inflexional genitive—as we say 'in an undertaking of *his*' (not of *him*); if this be the notion I should discard the 's after 'of' as obsolescent. But the case is scarcely covered thus: after 'Gladstone's' some following noun might be understood, and such is often the intention; *e.g.* if in a context on editions of Homer we read 'This gloss we discovered in a note of Mr. Gladstone's,' we might take 'edition of Homer' as understood after 'Gladstone's.'

Whether in the genitive of a noun ending in *s* (*e.g.* Socrates) we should write Socrateses, Socrates's, or Socrates', is not a matter of grammar but of custom, and the last is the most convenient. Usually, however, as also in the plural of such

nouns, we avoid these hisses by a periphrasis: *e.g.* 'in the opinion of Socrates.' 'Would there were more Socrateses in the world' is very ugly.

A common grammatical error is the forcing of an *alien preposition* upon a verb: *e.g.* 'of which he had heard but never seen' (*seen of* !); 'This addition can be applied and connected with the instrument' (applied *with* !). Or by the omission of a necessary preposition the meaning may be vitiated: *e.g.* 'Much depends on the home and the care bestowed upon them.' Here *on* must be repeated before 'the care,' as the home is not bestowed upon them.

Singular and Plural Nouns.—Whether Greek be 'compulsory' or not, Latin cannot well be omitted from a good education; yet when in theses before me I read not only *prodromata* (for *prodromon*—*pl.* *prodroma*) *passim*, and not rarely also 'a phenomena,' and so forth, ignorance of Greek is scarcely an excuse. But what are we to say when not long ago a well-known physician wrote of 'vocal fremiti!' In editorial paragraphs of smart newspapers I have lately read of 'omnibi,' and even of 'non possumi'; in a well-known book by a celebrated author we are told that 'the hands of the Scipii were nailed to the rostræ'—blunders which remind us of Frank Lockwood's jest, 'They will apply for a mandamus! Then we will apply for a brace of mandami.'

Some plural nouns condense into a singular: *e.g.* a barracks; a means (of attainment); a works (of a factory).

The purport of a sentence is often obscured by a neglect of *the generic singular and plural*. This sentence I find in a recent thesis :

We detected a copious growth of streptococci and of bacilli coli communes.

Here what may be scorned as a 'small criticism' is one of much importance. 'Bacilli coli communes' means, no doubt, many individuals of this one species; has 'streptococci' the same meaning, or is the plural a generic plural signifying more than one species? From the context I cannot tell: I waste some time, and am still in the dark; but probably the sentence should have run 'streptococci and bacillus coli communis,' bacillus coli communis being singular as to species, and cocci plural as to species. 'The growth showed affinities to the carcinomata' is correct, for the writer meant to a group of several kinds; but to say that 'secondary carcinomata were scattered in nodular masses through the liver' is wrong; as the nodules were presumably of one kind, and the name of the kind should have been in the singular: so again, in 'The operative treatment of uterine myomata' we should read *myoma*. On page 88, in the phrase 'exuberance of adjective,' I deleted the plural 'adjectives,' which at first I had written.

It is pedantic to use *Greek and Latin plurals* of words taken into common use; the rule is to confine these declensions to technical terms: e.g. 'asyla' for 'asylums' would be pedantic. We rarely make any technical gain in writing sequela

rather than sequel; and to write 'There were no complications nor sequelæ' is piebald work.

Before leaving grammar I may inquire why scientific essayists generally go out of their way to an *indirect construction* which does but take the life out of their sentences. We read '*there is* found a blue coloration,' '*there exists* a marked tendency for the parts to unite' (*vide* p. 123), 'only rarely does one find'; 'and to the apathy of the sufferer was added an appearance of exhaustion'—all vapid substitutes for direct assertion, such as '*it turns blue*,' '*the parts are very apt to unite*,' '*one rarely finds*,' and so forth.

The Reporters' Aorist.—In reporting speeches there is a certain arrangement of tenses, as it is customary I cannot call it an error, which, as a mode of expression, seems to me to be faulty. The custom is that the reporter is wont to put the general propositions of the speech into a past tense. Statements of fact, such as 'the speaker *said*,' are properly of the past tense; but general propositions, if valid, are valid in the present and future; to put them in a past tense is to suggest that even the speaker had no faith in their constancy. Let us suppose the speaker to say that he mixed such and such substances in a phial, that he put the phial under certain conditions of temperature, that after a certain lapse of time he added another reagent, and thereupon that he observed a peculiar change in the colour of the liquid; all this is a statement of what happened on a certain past day, and so is put properly in the perfect tense. If this experiment

be repeated, and repeated again, the report of them must still be in the past tense. But the speaker then declares an inference from the past events—(the ‘facts,’ *vide* p. 99)—namely, that by this process the presence of a particular alkaloid may be detected; now this is not a fact, it is a general proposition, true not only of the period of that research but, as the author would urge, of all human time; then surely the reporter should put this proposition, as all other general propositions in an argument, in the indicative present; otherwise it is ineffectual. The press reporter is so strongly addicted to this mistake that in reports of speeches of my own I failed to convert him to my syntax, and vain fatigues bade me cease. We need but take up the nearest scientific newspaper to find instances: *e.g.*

Did alcohol tend to shorten life, and, if so, to what extent *did* it do so?

Or again:

It would be hard to show that any characteristic property of protoplasm *did* not take its share in the fundamental endowment of life, and *was* not part of its final mystery.

Passing by the equivocal ‘final mystery’—surely the mystery is present, whether to be final or not—the point of the sentence is blunted by the past tense. (For ‘*did*’ read *does*, and for ‘*was*’ *is*.) Again: in the report of a certain speech, I note (among other things) that (the speaker) ‘found a difficulty in defining the term *purpura*’—that ‘he had found a certain drug useful’—that ‘he did not

believe purpura *was* common in scurvy'—that 'a certain kind of it *was* common in children'—that 'in it there *were* three degrees of effusion'—that 'opium *was* of value for the pain'—and so forth: here 'found' and 'had' are correct—they are past experience—'was' (twice) and 'were' should have been *is* and *are*, for by them the writer intended general propositions, presently valid. Another speaker is thus reported: 'If there *was* such a disease as this, what *was* its pathology?'—but he did not mean to be purely historical; what he said no doubt was, 'If there *is* . . . what *is*,' etc. A little while ago Ehrlich was thus reported: 'Toxins *were* unstable substances' (as if since they *had* become stable?); and, more absurdly, '*at present* it *was* impossible to define them chemically.' Again, in another place, 'Real education *was* not an affair of the memory only; the mind *was* a live thing,' etc. But the blunder is rarely so untimely as in the attribution to a prelate at a recent church congress of the words, 'that there *was* a God above us.'

The same false sequacity in concords is seen in such phrases as 'I intended to *have written*' (for 'I intended to write'); 'I should like to *have seen* him' (for 'I should have liked to see him'); 'It would have been wrong to *have refused*' (for 'to refuse'); 'I should have deserved to *have been* dismissed' (for 'to be dismissed').

Order of words and periods.—In the construction of English prose we have to consider the

order of the chapters, of the paragraphs, of the sentences, of the clauses, and of the words. It is convenient to begin with the larger divisions.

With the *chapter* we have little concern in building essays; the subject matter of a thesis, in the case of M.B. at any rate, is usually comprehensible in one chapter. Some larger papers, however, which indeed deserve the name of treatise, are divisible into chapters: for example, functions of the cell may be regarded in their physical, chemical, vital aspects; and each of these great divisions may properly occupy a chapter of its own: or again, even within these divisions important subdivisions may be on the scale of chapters. The length of the chapters depends upon the quantity and variety of the whole of the material under discussion.

A chapter consists of sections, visible or invisible, and on the order and content of the sections much of the lucidity even of the chapter depends: a mechanical order is better than none; an organic order—an order of thought—is better still. An order of thought may be, as I have said before (p. 15), either the order of research or the order of exposition; and under ordinary circumstances the latter is to be preferred. From the outset the reader should see clearly what the author is driving at; and that every particular on the way is shepherded by his intention. Without such a view the reader must return time after time upon his steps to appreciate the proper place and value of each phase and limb of the argument. I am assured that

even in mathematics these qualities of 'style' are as notable as they are in prose.

In plotting out the main divisions of the argument then we shall set down the lines of it upon a slip of paper, and let some general view of it appear in the first paragraphs; thenceforward in more and more detail the facts and notions upon which the main idea is founded may be displayed gradually. Although every division larger than a paragraph is a chapter, yet in many works several sections, shorter than chapters, may be indicated by a blank interval, by indicative words in heavier type, or by indent. In writing of a disease such sectional chapters may follow a division of the subject into causes, symptoms, diagnosis, treatment, and so forth; but if the thesis deal, let us say, with the pathology of the disease only, then the morbid anatomy, the histology, the morbid processes, the chemistry and so on would occupy the several sectional divisions.

On turning now to *the paragraph*, I find in too many papers that this feature has a precarious existence or none. Not infrequently indeed, in page after page, sentences are treated as paragraphs, or the paragraphs, if any there be, not corresponding with natural parts of the argument, are fragments or hunks of the body of the thesis rather than limbs of it; merely mechanical parcels, like a string of sausages. In a thesis now before me one paragraph deals with operations, simultaneous and successive, in double empyema; it then goes aside to describe a single empyema of another kind,

cured by aspiration only : there, although this last subject is unfinished, to be taken up again later, this paragraph ends ; and in another the writer goes back again to operation in double empyema ; and so forth. Now we must bear in mind that a paragraph, unless it be in a summary or emphatic position, is more than a sentence ; it is a group of sentences, one bearing on another, and thus compassing a wider meaning than the sentence ; it has therefore its own subject and unity, though of a scope far narrower than that of the chapter. A careful portioning of the matter into paragraphs, all sufficient and various enough to contain the several limbs of the argument, but none too long for the reader to grasp at once, is a great assistance to him ; but thus to isolate mere sentences, and to hop by paragraphs, as it were upon stepping-stones, is almost as fatiguing as it is, on the other hand, to trudge over lengths of stuff without beginning, middle, or end, and without those pauses and recoveries on the way that the slender faculties of man require. Furthermore, if the paragraphs obey the modelling of the thought, the composition gains in the variety which the rise and fall, and the variable parts and periods of the full argument, impart to the mind and the eye. Again, some paragraphs become wearisome by a piling of exception on exception, or of caution upon caution ; a Barmecidal kind of intellectual feeding, a windy diet of interdictions.

Here below then we must think in segments, but we shall let the stages of our pilgrimage vary

with the natural turns and periods of the subject. Yet, after all, if the thought be in no great disorder, the reader may for himself carve out chapters and even paragraphs; and if we are tired we can stop, if not at the best halts yet where we please. Such is the gentleness of a book that we may cease to take note of it, neglect it, or even at our caprice throw it aside; and yet again and again it will open its heart to us. Chapter and even paragraph I say we may dispense with; but *the sentence* we cannot ignore, for the sentence is the elemental constituent of prose. If he forgets paragraph and chapter the author makes the way less easy for us; but if his sentences are awkward, shapeless, and perplexed, his ore must be very precious if we are to toil on with him. Is there not a certain arrogance in the author who cares little, or not at all, for unseemliness; who will put us out of step without apology?

At school, in the English lesson, if such lesson perchance there be, the scholar is always told to shorten the sentence; but there is a place for the long sentence as there is for the short one: the short sentence brings up morsels of stuff, or drives some aphorism smartly home; the long and periodic sentence, which usually comes later, builds up the conception, or parts of the conception, resuming argument upon argument, each in its logical order, in its own best light, and in its proper bearings upon the rest. The teacher of English should not say absolutely that the sentence must be short, but, as to construct a long one takes more thought and skill

than the ordinary schoolboy possesses, it is better for the beginner to keep to brevity.

For the longer the sentence the more arduous its architecture; a page-long sentence in a German book is usually made up as a bundle of faggots; few Germans can build a sentence after the manner of Goethe or Heine. I open at hazard at the last sentence of "A Chapter on Ears" in the *Essays of Elia*, an essay not designed to be imposing in structure; yet I find this sentence a page long, and succeeding one of fourteen lines. The right rule then is that we shall not attempt the long sentence until the practice of shorter ones has given us some facility in sentence-building; then as we find that each kind has its own place and effect, we shall image the various extents and qualities of our matter in a variety of forms.

The same considerations may be applied even to diffuseness; there is a diffuseness which makes for freedom and elegance in writing, by which the matter flows more sweetly into the mind of the reader (*vide* p. 23). This art of felicitous dilution, of graceful digression, of happy amplification, is the last accomplishment of an author; but in scientific essays, fortunately for us botchers, this quality is less important, perhaps rarely expedient: authors of scientific papers had better be content with the pruning-hook.

Grammarians have analysed the sentence very carefully; and were I to try to speak here as a grammarian I should have to classify clauses not only as simple and compound, a division which

speaks for itself, but also into 'adversative,' 'concessive,' and the like ; all of which, however, as a mere friendly and informal counsellor, I will omit (*vide* p. 69). Of two technical rules, however, we shall take heed ; namely, that, usually, time clauses come first and place clauses only second to those : *e.g.* 'At sunrise|from the tower of the city|the bells began to peal.' As in time clauses we include those containing 'then,' 'when,' 'while,' 'often,' 'sometimes,' 'before,' 'after,' 'whenever,' etc., as well as those more fully and directly declaratory of time ; so those of place include clauses with 'here,' 'there,' etc., unless the importance of these parts of speech be quite subordinate, or indeed metaphorical.

Order of clauses.—Omitting then the technical divisions of sentences and content with the simple and compound forms—or indeed with the compound, for on the simple sentence we need not dwell—of the *compound sentence* I will note but two kinds, *the loose and the periodic*. The periodic sentence can end in one manner only, that is, on the completion of its period ; a loose sentence is one which might have ended at an earlier pause. Here is a 'loose sentence' :

He was struck down by an attack of brain fever, producing acute delirium, which lasted at least two months, but from which he completely recovered before the autumn.

This sentence might have ended at any one of the stops ; there being no implications of later clauses. But if I take this sentence :

A brain of such imaginative power, bound to a heart so

morbidly sensitive, furiously seeking peace through indefatigable work, with the ever-present shadow of blighted affection within and passionate abhorrence of the social misery around—here was a nature perilously near to a crushing collapse—(and so on)—

this, though a much longer sentence than that quoted before it as ‘loose,’ could not have ended anywhere before its close: it is a ‘period.’ On the other hand, this celebrated sentence of John Bright is, technically speaking, ‘loose’:

The Angel of Death is abroad through the land: we may almost hear the beating of his wings.

It might have ended at the colon; although by the division the majesty of the image would have been diminished. It is not to be supposed then that a ‘loose’ sentence is so far a bad one, or a periodic sentence so far a good one; a loose sentence is no doubt more easy to write, but mere difficulty makes no standard of composition. Each variety has its virtues, each its perils and faults. If the loose sentence may be formless, motley, or trailing, the periodic sentence may be—and too often is—involved, loaded, or lumbering. The loose sentence is formless when its clauses transgress the order of thought; it is motley when alien matter is thrown into it; it is trailing when the extension of it is tedious or inept. To append an unexpected clause, as in a loose sentence we can, may be very effective; as, *e.g.*

It is fair if our friends love us next to themselves, they may not love us better; men must have no sense who in this case have no suspicion.

But the following loose sentence, brief as it is, succeeds nevertheless in being formless :

It is difficult to exaggerate the gravity of the situation, but I will do my best.

The following sentence was cast loose, but, by reversing the order of the last two clauses, it might have been turned into a period :

Victory, wealth, authority, happiness, all have departed ; though bought by many a bitter sacrifice.

No doubt it was cast loose skilfully, to give it a meditative quality. But here are loose sequences which are not so happy :

Where would Walton have found himself in the *ecclesiastical world if now alive?*

The wall gave shelter to a few small birds and to a solitary man that watched them from the bleak wind.

Here is another recent instance, from the War Office :

All officers will have to pass an examination for promotion to the rank of *Commander in certain technical subjects.*

Spare no pains, then, that the parts of your sentences, whether they be loose or periodic, run in logical order : the following example of a loose sentence (from a recent scientific paper) offends logical order throughout :

This body is with difficulty made to rotate, and sets itself in motion again if it be stopped, and at once does so.

Now, before we can conceive the difficulty, we want a picture of the action, thus : 'This body is made

to rotate—with difficulty: *and* (but) sets itself in motion again'—how so, when it is rotating already? The next clause should intervene, 'if it be stopped, sets itself in motion again' (when 'again' would obtain its proper place of emphasis)—'and at once'; here seems to be the end?—no! 'does so' comes trailing in; *i.e.* in the final place, that of emphasis (p. 126), are two almost idle words: if remain they must, the clause should be transposed—'and does so at once'—'at once' being now in the place of emphasis it requires. Thus remodelled the sentence runs:

This body is made to rotate with difficulty; but if it be stopped it sets itself in motion again, and does so at once.

In this new order how much more lucid and alive is the statement! Again, would not this sentence, from a fine critic—'which is almost tragic in spite of its humour in its intensity.'—run far better thus, —'which in spite of its humour is in its intensity almost tragic.'

To pass from the formless to *the motley sentence*—that in which the subject is changed, or contingent matter included: 'Mrs. Potts . . . left the house in a flood of tears and a sedan-chair' is, as the author intended, not only formless but motley; that is, alien matter is introduced into it. Here again is a stock example of *lack of unity*: 'A piano for sale by a lady about to cross the Channel in an oak case with carved legs'; yet is the following, from a thesis before me, much better?—'Its breathing was rapid, and its temperature 103°, and

its mother said it was frightened by a rat.' Unity, then, must be diligently observed in the sentence, as in the paragraph, in the chapter, and indeed in the whole of a work; without unity the work or its parts, if not disfigured, become disjointed and patchy. In its minor degrees no fault in academic essays is more frequent than incongruity, even in those which in matter or in grammar may be sufficient.

Of *trailing*, or *lagging*, *sentences* it is needless to give examples; they may be found at will: suffice it to say that if a sentence is to be cast loose, the successive clauses must not fall off in strength or in meaning, as with sinking clauses the lag is felt much sooner. A conditional clause, therefore, must not be left to the end: *e.g.* 'This reaction can always be obtained, if the temperature is kept at 20° C.' (the clauses should have been reversed); nor an important modification, as, *e.g.*, 'Robinson found a diminution of the albumen in the serum, of starving animals'; or again, 'Twenty-eight patients were treated with hypodermic injections, of which eight died': here the 'trail' pulls us up unexpectedly, and makes us wonder if they died of the injections! The explanatory clause should have followed 'patients.'

I have given some examples of ineffectual, clumsy, and even grotesque composition; as examples of the point, lucidity, and effect of well-constructed sentences, sentences of which the parts are deftly and logically put together, the emphasis precisely set, and the unity and balance of the periods justly measured, it is convenient at the present time to

cite the recent advertisements in the *Times* of the *Encyclopædia Britannica*. For young writers they are good examples, as they are mere business, and concerned with no matters of meditation or fancy; they are paragraphs of a kind on which city men think it idle to waste their time: yet I do not doubt that the aptness of the language to the subject, the dexterity of the phrasing, accents, and emphasis, the clearness and method of the arguments, were worth much gold to the advertisers.

In handbooks you will find rule upon rule to govern you in ordering your sentences, and when you have learned how to order them, you may find a little interest in the rules. The best of them is Ben Jonson's—to make your sentences 'round and clean.' But no one ever learned to play a game by perusal of rules (*vide* p. 64): having trained your ear on good prose, turn your sentences this way and that before you pass your revise for press, and fix them in the form which reads best: the rules you can read afterwards.

In English the *periodic sentence* moves in large orbits with difficulty, as our tongue has lost the declensions and inflexions which in Greek and Latin keep the reader in close touch with the sense. In English long suspensions cannot be carried forward without the danger of losing this support. The more then the length and complexity of a sentence the more the care that its contents shall be congruous, its order logical, its subordinate clauses in due service to the principal clauses, its terms lucid,

and its emphases properly distributed ; moreover, its rhythm must accord with its sentiment, and its tones must be sweet. So, even in English, periods of some sweep, if their parts are well distributed, may be highly effective by the pleasure which we receive from just thought, elevation, rhythm, and sound. Examples of this distinction are to be taken more readily in poetry than in prose ; though in balancing tone and accent we must carefully avoid any semblance of blank verse : there is a harmony of prose as there is a harmony of verse ; and the arts must be distinguished.

Suspension.—In prose, then, for breadth of conception, dignity, or impressiveness, the ear and the understanding are willing to be constrained by suspension ; but mere drags, delays, or inversions, without such rewards, they resent : thus it is that the bootless suspensions of German prose are grievous to us. In the construction of large and effective periods Gibbon's eminence is well known ; but at times even he, like Johnson too reminiscent of Latin, put upon English a little more than our language could carry, or gave too great a stateliness to ordinary paragraphs.

As then in music so in prose, our suspenses must be resolved happily and effectively, every suspension having its full reward. Thus even short suspensions need for their success a good ear, and a nice order and balance of clauses, increasing successively in weight and logical climax until the acme is attained. A suspension may end in a little surprise ; but, like epigram, this salt, to be effective, must be

used adroitly and sparingly. In the first of the following sentences we are held in a suspense which is brief indeed, but ill-balanced and bootless :

Their respective views on political matters would have hindered, *we feel sure*, their friendship.

I have on my notes specimens of long sentences built throughout in this uncouth masonry, but it is not necessary to print them. For a second example I have chosen a long sentence, without ornament but so finely and variously constructed that it carries its length easily, and the reader with it ; here every suspense has its full reward.

And there, too, rises before us a living image of the majestic poet who had come after Phrynichus, the poet who, first of the Hellenes, had built up a stately diction for Tragedy, and also invested it with external grandeur ; the poet who had described the battle of Salamis as he had seen it ; whose lofty verse had been inspired by the wish to nourish the minds of his fellow-citizens with ennobling ideals, to make them good men and true, worthy of their fathers and their city ; the poet to whom many an Athenian, sick at heart with the decay of patriotism and with the presage of worse to come, looked back, amidst regret for the recent loss of Sophocles and Euripides, as to one who had been not only the creator of the Attic drama, but also in his own person an embodiment of that manly and victorious Athens which was for ever passing away.—Jebb, *Classical Greek Poetry*, p. 184.

The third is an instance of the effective use of a short sentence following a long one, whereby an emphasis or contrast may be imparted which the long sentence alone may fail to achieve. In his biography of Bishop Fraser, in a paragraph of

two octavo pages, Mr. Bryce recalls to us many great prelates before Fraser and with him; and, as their several features vary and the interest increases, his sentences are various also, carrying more and more weight till, after three or four sentences of six or eight lines in length, he concludes the paragraph,—‘His career marked a new departure, and set a new example.’ Thus in eleven words the idea of the paragraph is happily consummated, and our attention is refreshed.

To this instance I will add two ‘of surprise’ (p. 70):—in an ephemeral essay, after some long suspensions, comes this brief sentence:

A man of thirty, if he be of liberal education, may read even the very newspapers themselves without much hurt.

And Henry Sidgwick,—after a description of the Homeric banquets:

Political dinners are very primitive institutions.

Short suspensions within larger periods are rarely tolerable in English (p. 71, l. 5). These suspensions are instances of a vulgar mode, but a mode to me very inelegant: ‘To improve, as much as possible, the general health,’ etc., etc. (these two clauses should change places). ‘I wish owners of such MSS. would let me see, and make extracts from, them’ is also clumsy. The clauses, ‘He made many sketches of, and gave close attention to, the village churches of the county’ (for, ‘He paid close attention to the churches, etc., and made many sketches of them’), are not only in the wrong logical order, for the more general should have

preceded the more particular statement, but also by this suspension an emphasis and an accent are thrown upon the little words 'of' and 'to' which they do not merit. Here are three more instances, culled almost as I write: 'They are at liberty to, and are much* tempted to, palm off on the public,' etc. 'He was strongly opposed to, and completely disposed of, these objections.' 'There was suspicion of, and some indignation at, his intervention.' The following suspension is less objectionable, but the value of the order does not quite reward us for the arrest of our attention: 'There are few striking events, and few more remarkable coincidences, in history'—'in history' should have followed 'events.' If, for our amusement, we admit 'For 'tis their nature to,' we defend it on the ground that 'to' intends 'to bark and bite,' and is therefore emphatic; but to write 'There were more conditions than he *had any knowledge of*' (*than he knew*) is inelegant, for 'ov' is neither an emphatic nor a pretty ending. The proper ground of objection to ending a sentence with a preposition is that thus, to speak generally, a place of emphasis (p. 126) is occupied by a weak word. In the next sentence, however, the suspension is rewarded by the profound qualification: 'The double myth is explained by the hypothesis of independent, though psychologically similar, *origin*'; its fault is the ugly approximation of *ar* and *or* ('lurrrr—igin!') (p. 141).

Parenthesis.—Of this kind of suspension I will say only, that to use parenthesis effectively a very skilful hand is required. Unless for the

briefest point of explanation we shall let parenthesis alone.

Before quitting suspensions I must make especial reference to that of the *Split Infinitive*, or the insertion of a word or words between 'to' and the verb itself: for example, 'Concentration seems *to practically alone determine* this reaction.' Slipshod or saucy writers say to me, "Why should I not split the infinitive?" The first and perhaps sufficient answer is that authors who make the best of the language never do it. Search all or any of them, living or dead; no instance of it will be found. Even writers, such as Carlyle or Ruskin, who press the resources of the language to the uttermost, **never** play this prank; for instances we must turn to the printed matter of company promoters, auctioneers, news and puff writers, and second-rate novelists. But, if the question be pressed—What reason would careful authors give for this avoidance?—to this, as to many other such questions, we may be content to reply that those who dwell on the power, profit, and beauty of a language beget in themselves a sense of fitness and harmony by which they judge of usage, and perceive instinctively whether this and that be, or be not, accordant with the genius of a language; with that development of its virtues which in the long run will make the best of it as an instrument of thought and sentiment. This instinct, as betrayed in fine prose, is as virile and true as it is delicate and elusive. Still we may fairly be pressed to give some closer reasons, and such reasons are not far to seek: generally, as I have

said, even short suspensions are not welcome in English; and in this case by removing the affix we are suspending part of the inflexion of a verb. Now, as the verb is one of the most important words of the sentence, to divorce it from its attendant particle is a "suspension without reward," and therefore tiresome. Thus, besides imparting an air of jauntiness, a split infinitive is rarely or never telling; usually, indeed, it is harmful to the sense: *e.g.* the clause quoted above from an essay before me, 'Concentration seems to practically alone determine this reaction,' should have run 'In practice concentration alone seems to determine the reaction': 'in practice' comes now, where it should come, in an emphatic place (p. 126), and 'alone' is attached to 'concentration,' where it is wanted. Again, 'The motor area is found *to not at any point extend* behind the sulcus centralis'—if the ear can tolerate this, is the understanding satisfied? The writer evidently made for emphasis: then he should have written 'Not at any point is the motor area found to extend,' and so carried the sense and the reader better with him. 'To always sleep with the window open' conveys the notion of an everlasting sleep—with the window open; whereas in all probability something less than this was meant. To take a common and simple example: 'To firmly bring the bandage round,' etc.; this is a bothering way of putting it; 'firmly' comes on us before we have formed the notion of what is to be done firmly; so 'To bring the bandage round firmly' is more lucid, and 'firmly' comes, as it

should, in a place of emphasis. 'To, if possible, obtain' is open to a like objection; before we can judge of the possibility we would know what is desired; and so on.

'To' is sometimes omitted from an infinitive with disadvantage: *e.g.* 'I did not prompt him to praise or disparage the book,' which construction makes *disparage* seem to be a kind of praise; before 'disparage,' therefore, *to* must be inserted.

'Try *and* find,' 'Be sure *and* come,' are not effective forms, even in gossip.

Not content with splitting infinitives, slatternly writers are beginning to interpolate matter between the definite article and the noun, thus: 'He gave way to the in all respects objectionable practice of,' etc.; or again: 'His attitude to the in some quarters prevalent creed.' These suspensions are as ugly in form as they are awkward in sense. 'The commonly affected joints' may be defended as adjectival, but it has the same kind of clumsiness; 'the joints commonly affected' runs more fluently and logically. 'So they have *everywhere* used them' is not only a bad but a confusing order—to what does 'everywhere' refer?—'they' or 'them'? And the growing habit of inserting/suspended matter between the auxiliary and the verb does not make for elegance, *e.g.* 'The outlook has, during the last two generations, undergone improvement' (not to mention that it is rather the object than the look-out which is supposed to improve). I have no excuse to make for an eminent school-master who writes 'and he several times takes.'

When a certain lady begins a sentence 'We to-day find' (for 'To-day we find') we scarcely know whether to resent the blot on a beautiful sentence or to be grateful to her for work so charming that the least of lapses is conspicuous. Such suspensions, unless the reward is great, offend both ear and understanding.

Chopping sentences.—In evasion of the difficulty of constructing long sentences, and of aptly resolving suspensions, we may fly to the opposite extreme. If we have little to say, and our readers have little to think, we are tempted to be curt, to avoid suspensions altogether, and to endeavour to make our sentences 'crisp,' as the journalists put it; that is, jerky and choppy: yet a run of such phrases, by their jolts and stops, are as wearisome to persons capable of sustained thinking as to the childish the longer period or paragraph may be. If for matters of weight the more dignified and sustained form of expression is a becoming vesture, and if frivolous matters are to be thrown into the pert and petty phrases they merit, the bulk of interesting prose should be cast in a pleasantly various form. Of the clipped sentence Hazlitt was one of the parents, and, in his pride of parentage carried it, in my opinion, much too far. The following is no unfair example of this too frequent use of his; forcible no doubt it is, but, after a while, like a tattoo or a cavalry trot, is too bustling and bumping to be pleasant:

I cannot say that the party at Lamb's were all of one description. There were honorary members, lay brothers.

Wit and good fellowship was the motto inscribed over the door. When a stranger came in, it was not asked, 'Has he written anything?'—we were above that pedantry; but we wanted to see what he could do. If he could take a hand at piquet he was welcome to sit down. If a person liked anything, if he took snuff heartily, it was sufficient. He would understand by analogy the pungency of other things besides Irish blackguard or Scotch rappee. A character was good anywhere, in a room or on paper. But we abhorred insipidity, affectation, and fine gentlemen. There was one of our party who never failed to mark 'two for his Nob' at cribbage, and he was thought no mean person. This was Ned Phillips, and a better fellow in his way breathes not.

And so on; reminding us, and to its disadvantage, of the sailor's log:

At $\frac{3}{4}$ past 2 came to the wind, on the larboard tack. Saw 17 ships at anchor; 13 were line-of-battle ships, 4 frigates with 2 brigs, and 2 bombs. Immediately made all sail. Cleared ship for action, and hove overboard ten bullocks.

Here we desire the short sentences which are proper to a swift and dashing story, and we get them: in ordinary narrative and in common life we do not care to be hustled along so breathlessly. Modern French authors, not journalists only, are sinners in this fashion; and it would be easy from their volumes to quote page after page of curtal sentences. A scene which swiftly opens to sight and as swiftly vanishes may delight us; but a rapid succession of fleeting visions, like the glimpses vouchsafed to us as we flash through a long series of railway tunnels, is distressing, *e.g.*:

Telles ont été les impressions d'un vieux Parisien pendant ces trois jours. Elles peuvent être fausses. Elles sont sin-

cères. C'est ainsi qu'il a vu les choses. Mais cela ne dure pas. Simple épisode. Tout rentre dans l'ordre.

And so on, and so on, for a column of such spasms: yet this is from the pen of one who at other times has proved himself to be among the first of living French authors.

In essay writing, then, facts and conditions may well be arrayed at first briefly and severally; but as they are marshalled into full argument the periods should be more extended; though even then a succession of long sentences would be monotonous. We shall not forget that in sentences as well as in paragraphs, variety is pleasing.

Order of words.—From the ordering of clauses we pass easily to the order of the words in a clause; the order of words in a clause may be as important as the order of clauses in a sentence. Now the faults of disorder of this kind are easy to note and to correct, if the writer, as he revises his manuscript, will but trouble himself to balance the words: to order a long sentence or a paragraph is, as we have seen, a higher accomplishment; but to make a few words run nicely is no hard task. To refuse this minor care is an ill compliment to the reader, and an ill service to the author himself, if his matter be worth the writing; yet, even by good writers, this part of syntax is habitually neglected.

Let us gather a few examples of verbal disorder: 'The Englishman killed the Frenchman' has not the same meaning as 'The Frenchman killed the Englishman'; yet the difference is one of order only. .

'People ceased to wonder by degrees' is a lame form for 'By degrees people ceased to wonder.' 'Jones also said' has not the same meaning as 'Jones said also.' 'Tradition is even silent' is an error for 'Even tradition,' etc. A wrong order may have comical effects, as in these stock examples: 'They followed the party step by step through telescopes.' 'A crammer cannot be prevented from continuing to cram by any power on earth.' 'Ford's theatre is for sale where Mr. Lincoln was assassinated for religious purposes.' 'A clever magistrate would see whether he was deliberately lying a great deal better than a stupid jury.' 'His memory ought to be honoured by interment in Westminster Abbey.' 'Erected to the memory of John Phillips accidentally shot as a mark of affection by his brother.' 'The clergyman declares aloud that he believes it a dozen times every year of his life.' 'I understand that when he died Cardinal Mezzofanti spoke at least fifty languages.' Composition as disorderly as this, if not so grotesque as in the cases quoted above, appears continually in our theses, perverting the sense and bewildering the reader. *E.g.* a candidate read to me, 'I could, when killed, discover nothing abnormal'—another that 'It is hard to find a resident medical officer except in very large work-houses' (he did not mean that the larger the workhouse the easier it is to find the physician). 'The changes seem to occur in both practically simultaneously' (here 'both' seems to apply to 'practically' and 'simultaneously'; 'in both')

should have opened the sentence. Pugin's son told me that his father said of glass painters: "They say stained glass cannot be made now as fine as it was in the thirteenth and fourteenth centuries, do they? I tell you, as fine glass can be made as ever. What they can't do is to put it together."

Adverbs are often placed badly: *e.g.* 'Although the thing is quite artistically negligible'; here the writer meant not to speak of neglect as a mode of art, but to say that the neglect was not inconsistent with artistic treatment; so 'artistically' ought to have followed 'although.' By 'This hat does not apparently belong to me' do we mean that it does really?—or ought 'apparently' to have come first? 'The report was not unfortunately sent in' means it was timely; whereas the writer intended to say the contrary. Again, we read: 'Luckily the monks had given away a couple of dogs, which were returned to them, or the breed would have been lost.' (Of course 'luckily' should have followed 'which.') 'Only one rat was successfully inoculated' should be 'was inoculated successfully' (presumably the inoculation itself was successful in all cases; it was the results which were unsuccessful). So in the sentence 'It is well known that arsenic is slowly excreted' the writer did not mean to assert that arsenic is excreted, however slowly; but that the excretion of it is slow. He should have written 'Arsenic is excreted slowly.' Again, in each of the sentences 'The dose is to be gradually increased' and 'in such a way as to gently draw the lever up' the adverb should have been placed at the end, as in

each case the context indicated that the adverb and not the verb was emphatic (*vide* 'Split Infinitive,' p. 74, and 'Emphasis,' p. 126). 'The first two arrivals' is an incorrect order unless the arrivals are in pairs: otherwise it should run 'The two first,' etc. These little niceties are potent to maintain the reader's attention: *e.g.* 'he does not unhappily care,' conveys to him a meaning very different from 'unhappily he does not care.' 'Both' and 'either' are often misplaced: *e.g.* 'He found both traces of sugar and albumin,' where 'both' is intended to apply not to various traces but to 'sugar and albumin.' Likewise 'neither' is often misplaced: 'He was neither fitted by abilities nor temperament' (here 'neither' should follow 'fitted'). In 'he was neither disposed to sanction bloodshed nor deceit' the same correction is needed. 'All not' very often appears in our theses for 'not all'; *e.g.* 'All men cannot jump a five-barred gate' would be an absurd order for 'Not all men can'; yet I am told that 'All secretions are not arrested by opium,' and that 'All mosquitoes are not vehicles of infection'—a different proposition from 'Not all mosquitoes,' etc. 'Well otherwise' is not equivalent to 'otherwise well,' nor 'not shown to be' to 'shown not to be.' Few writers think of the proper place of that flighty little word 'only'; *e.g.* 'He only touched the fringe of a large subject' signifies that the fringe was barely handled; whereas the writer meant 'He touched only the fringe,' etc. 'Only seems to occur' has a widely different meaning from 'seems to occur

only.' In the sentence 'Evidence of excretion only being found in four out of thirteen cases' the context did not tell me whether *only excretion* was intended, or it was *no more than found*, or was *found in four only*. 'Absorption only commences in the lower intestine'—then where can it be continued? 'It can only health and joy afford' (for 'It only,' etc.) and 'It can *only* be eliminated by spare and careful diet' suggest that in each of these sentences there was something more to be desired. 'Only too frequently he attains his purpose' and 'This is only what was to be expected' are correct. Moreover, 'only' is often inserted detrimentally. In the following sentence, 'Such successes only emphasised his previous failures,' the adverb is rightly placed, but it spoils the sense: his successes did far more than this; and so again in 'It is only reasonable to suppose,' etc. The use of 'only' for 'not until' is not elegant, and tends to ambiguity; *e.g.* 'then and only then' means 'at that time and at no other.' 'His hair only turned grey when he was sixty-five' (and at sixty-six was black again?) 'The breathing only became easy after two days.' 'James only became King of Aragon when his elder brother died,' says a good historian—what more did James hope then to become? 'He would only see his destination about 8.30 in the evening'—which would be a brief glimpse, poor man. 'The letter was written in 1803, the essay was only published twenty-three years later' is surely a very misleading sentence for an eminent writer.

The rule for placing an adverb is not quite the

same for active and neuter verbs; those it usually precedes, these it usually follows: but in particular cases it is often well to subordinate this rule to precision of sense and to emphasis.

Also is often misplaced; *e.g.* 'I also place some crystals of the salt in the solution,' where 'also' is not meant to qualify 'place,' but should come after 'place' or after 'salt.'

The order of adjectives is sadly neglected, yet even to those readers who do not perceive the causes of their flagging attention, the neglect is fatiguing: *e.g.* 'He had a prolonged and severe attack'; 'The hands are spade-like and short'; 'He stands quite still and steady': in all these sentences the order of the adjectives is contrary to the order of thought, and should have been reversed. In the clause 'enthusiastic, respectful, distant admiration' we are chilled as we read on, whereas 'distant, respectful, enthusiastic' would have warmed us. And such examples meet the eye continually. How to economise our adjectives and to use them with directness and frugality is considered under the head of 'Tautology' (p. 121).

Now let us pass from the order to **the choice of words**. Although, as we have seen (p. 9), from the origin of a word we may draw many a delicate tint of thought and fancy, or throw various side-lights on meaning, yet meaning may be put out of scale, or lie under false reflexions, if *etymology* be too much regarded. It is a common and a tiresome error to suppose that the meaning

of a word is to be governed by its etymology. Even on its invention a word may be derived awkwardly or ineptly; but, however apt in origin, words must grow or drift with the things they signify, and thus become endued with ever new and cumulative content. To hold us to the bald etymology of a word is a pedantry of the plain man, or of the half-educated man, who has not regarded the growth of a word. I have called the error common and tiresome, because in papers and theses it dogs our scientific pupils, and perverts many of their arguments. For example, 'Hyperpyrexia,' taken on bare etymology, is high or excessive fever; but it was applied, even in the first instance, not to mere high fever, for which no such grandiose name is required, but to a group of phenomena, a series of changes, of which excessive temperature is an eminent but by no means the only feature. As our knowledge of such processes develops, and as we distinguish and classify them, the more and the less must the name of the class denote. In answer, then, to a question on the process of hyperpyrexia, to pour forth a heap of heterogeneous instances in which an elevated temperature occurs, is to lose the bearings of the name in foggy thinking. Again, if the names Tachycardia and Bradycardia mean no more than rapid heart and slow heart respectively, then they are otiose terms, and their use a hollow pedantry. A carnivore is not any animal which eats flesh; nor do we class man as a plantigrade, with the bear and the badger. To take triter instances: the words 'fresh,' 'brisk,'

'frisky,' 'royal' and 'regal,' 'hospital' and 'hotel,' 'fancy' and 'phantasy,' have the same origin; but they are far from being interchangeable. Our use of 'cherub' raises no notion of Assyrian bulls, nor does an 'epidemic' bring up the idea of a royal progress (*ἐπιδημία θεοῦ Ἀδριάνου*); 'danger' does not suggest *dominarium*, nor 'veneration' Venus. Thus the meaning of a word grows or drifts away from its root. Indeed it has been said, and not paradoxically, that the more a word is detached from its origin the more it is at the service of our thought. Furthermore, we must remember that many words are endowed with different proper meanings, meanings often far apart; as 'root' (in ordinary use, in mathematics, and in philology); 'base'; 'table'; 'act' (in ordinary life, in the theatre, in university graduation); 'content'; 'ether'; 'vision'; 'general' (a general of an army stands for captain-general), and so on. Thus in Medicine we speak quite distinctively of General Paralysis and of Progressive Muscular Atrophy; or geologists speak of Tertiary Man; or we all speak of a Protestant, and are not misunderstood. In well-written paragraphs the conditions and circumstances of the context settle the particular meaning of many-faced words as surely as a clef in music settles the scale.

On the other hand, in the work of a fine writer, of prose or of poetry, we shall not overlook the range and colour a word may take when it is used with some regard to its lineage; by such device it may be charged with a rare significance. When Milton writes

In dim eclipse disastrous twilight sheds,

we feel the power of the astrological lineage of this great adjective; and by such concert an author who is as familiar with the anchorage of words in history as he is with their modern use keeps in intimate touch with educated readers. How falsely, on the other hand, an author may write who is not in touch with literature is exemplified on p. 131.

In progressive language and thought, then, a word, like a living creature, with which, being a function of life, it has much in common, undergoes, from its birth, a process of differentiation. Indeed, when words do not thus develop we may suspect that thought is stationary or declining; for as thought gathers in complexity, and the objects of thought gain in distinctness, words must be continually varied and redistributed; and he who is indifferent to this distribution, and, either in sheer ignorance or in a raw sense of etymological origins, drags back cultivated and distributed words into rudimentary senses, is a foe to thought (cf. p. 31). Were every word to be dragged back to its radicals, cultivated speech would come to an end.

The powers of the parts of speech.—In a recent study on De Quincey, Vernon Lee has shown how much a *sentence depends upon its verb*, its active as it is its indispensable element. She finds De Quincey poor in verbs, and those which he has to be for the most part mere links—"verbs of existence or mere explanation." For lively and powerful prose the verbs must be lively and powerful; "they are as the plot to the story." Thus De Quincey's prose

consists largely of masses of highly-coloured words without progression of thought or deed.

A certain advocate, when he had a bad case, used to shirk 'finite verbs'; when reasons failed him he betook himself to the splendour of adjectives and adverbs. So, when Ruskin has reason clearly in his mind, the sense of his periods is perfectly balanced; when he expatiates beyond the boundaries of reason he is wont to cheat the ear with pretty sounds. And in further illustration of her thesis Vernon Lee might have quoted George Sand. This admirable author carries us along in a lively stream; but the phrase, though not without a certain elegance, is facile; we do not dwell upon the turn or detail of it; it lacks distinction, and in it also may we recognise Vernon Lee's sign—the verbs are weak. The work is too ready; there is no choiceness in it.

Interesting as Vernon Lee's canon is, it indicates even more than she says; it covers and illustrates a larger subject. Indeed, she herself implies that weakness of verb means *exuberance of adjective*. But with your adjectives aim at economy and concentration of strength; let them be few, nervous, and direct. Note the force and thrift in such adjectives as these: 'The portals of illimitable sleep'—noting the swift approach of death, then the rest in the long final monosyllable. Again, 'Lord Lyndhurst was then in the prime of his octogenarian vigour'; such an adjective saves a sentence (p. 12). As brief illustrations I may quote 'the silent icicles'—'Of calling shapes . . . and airy tongues,'—and Browning's 'forky flashing' (torrent).

The adjective is often attached to the wrong noun ; e.g. 'a tender and noble trace of passion' for 'a trace of noble and tender passion.' But in 'the myriad shriek of wheeling ocean fowl,' by the transference of 'myriad' from 'fowl' to 'shriek,' a fine effect is obtained.

That with our adverbs we must use a like choice and chariness I need not stay to declare. In all these exercises the poets are our masters.

It is to the *meagreness of vocabulary* of the writers of theses that bluntness to the progressive differentiation of the meaning of words, and a coarse and trite use of them, are chiefly due. Were I, while keeping Acts, to stop to correct every error and to refine every vulgarity of the kind, I should fail, in many cases at any rate, to take the matter of the theses in hand. If the writer is furnished with but a lean stock of words, those that he has must be degraded to rude and indiscriminate uses.¹ In such a sentence as this: 'From this centre the germs were *extended* to other parts' (for 'were disseminated' or 'scattered'), the writer does not search for the aptest word for his meaning, nor does he care to do so; he fills the gap with the handiest of the few in his scrip. I note that many of my candidates are content with one general noun—'question'; two adjectives—'marked' and 'localised'; one verb—'to involve'; one adverb—'markedly'; one conjunction—'while.' A problem,

¹ A few days ago I found on a stall a modest little book entitled *Just the Word Wanted* (Walker and Co.) ; a good shilling's worth for young writers.

a dilemma, a proposition, a subject, a case, or nothing whatever, are all 'questions'; e.g. 'He gave credence to a doubtful question'; 'The question is one of decreased resistance' (for the *condition* or the *problem*); 'The question is one of decreased tissue change,' where indeed *answer* would have been nearer the meaning; 'The question of the shoulder and elbow will be referred to later' (for 'question' read *affection* or *injury*). 'To involve,' with its ugly noun 'involvement,' has to do duty for 'to attack,' 'to invade,' 'to injure,' 'to affect,' 'to pervert,' 'to encroach upon,' 'to influence,' 'to enclose,' 'to implicate,' 'to permeate,' 'to pervade,' 'to penetrate,' 'to dislocate,' 'to contaminate,' 'to complicate,' and so forth (*vide* 'Power of the Verb,' p. 87). I see in a thesis before me 'the liver also was involved; there being a few secondary growths in it'; the author might as well have said that his lawn was involved in a few dandelions. Again, 'the anæmia *involves* the hæmoglobin'—i.e. a certain chemical compound is enclosed in an abstraction! The following sentence, even with the context, is scarcely intelligible:

A lesion affecting the conduction chain of one gyrus is rarely free from the damaging *influence* of *involvement* of the other.

This seems to mean that 'the one' is influenced and damaged by its including 'the other,' but it is difficult to be sure of the intention of a very important sentence. Another essayist says 'the gland was not *primarily* involved,' yet to be 'involved' must surely be a consequent process. 'Localised' (with its substantive 'localisation') has

to serve the meanings of 'seated,' 'placed,' 'referred to,' 'narrow,' 'limited,' 'circumscribed,' 'confined,' 'encapsuled,' 'condensed,' 'consolidated,' 'determined,' 'deposited,' 'conveyed to,' etc., etc.; and moreover is often thrown in gratuitously. One well-known man of science, not of Cambridge, but even surpassing us in this kind, has lately written that 'many mammals have a *localised time* for migration.' 'While' is used indiscriminately for 'and,' 'since,' 'although,' 'whereas,' 'notwithstanding,' 'nevertheless,' 'yet,' and so forth.

Not only do we thus supply ourselves ill with words, but we are apt also, even the richer of us, to fall into *vocabularian ruts*. It is very difficult to avoid mannerism; a thoughtless habit of slipping into monotonous repetitions, into the reiteration of favourite phrases, which on occasion may be proper enough but, if repeated time after time, suggest a want of fresh thinking. 'Tags' are a mannerism; such as 'to all intents and purposes' (where perhaps neither 'intent' nor 'purpose,' or only one of them, was precisely the word wanted). Some of us are too fond of the word 'character'; e.g. 'The reports are (of a) satisfactory (character)'; 'The air they breathe is (of a) vitiated (character)'; for others, 'nature' is a pet word; e.g. 'Its horns are of a spiral nature'; 'His intentions were of quite a different nature' (kind). 'To elucidate the question of the extent to which (To ascertain how far) the reaction is (of a) temporary (nature) or (has a) permanent (character).' A very able writer cannot avoid 'in that,' which appears for 'that,' 'as,'

'because,' 'seeing that,' etc. It is therefore a great advantage now and then to submit our manuscript to a fresh eye, to an eye even less cultivated, as we may think, than our own, in order that we may have our little tricks discovered to us.

Let us then beware of all repetition of *trite phrases*, tags, and literary clichés; some of which are conventional quotations: such as 'She discoursed sweet music to my ear'; 'He did not deny the soft impeachment,' etc., etc. Others, like small coin defaced by wear, have lost their distinctive values: for instance, 'He was ostracised by his colleagues'; 'This auspicious occasion'; 'He cordially endorsed his remarks'; 'At the first blush'; 'He received his *coup de grâce*'; 'He was one of Nature's heroes'; 'It was a veritable *multum in parvo*'; 'She monopolised his society'; 'To cement our friendly relations'; 'His health was prejudiced'; 'Excessive exertion must not be indulged in' (in the text the 'indulgence' was dock labour); 'the rash act'; 'a lamentable performance'; 'roaring with laughter'; 'bathed in tears'; and so forth without end. In such mimicry we surrender individual character, talk like parrots, and drop into phrases as empty of thought as this: 'The treatment is by *absolute rest and stimulants*.'

Stale quotations might come under the head of 'Tags,' but are considered on p. 135.

Misused words.—Partly, then, in meagreness of vocabulary, partly in the following of current error, partly in sheer indifference, words are misused, some grievously. Three or four of these I

will deal with in a full and exemplary manner, to show how words should be weighed and tested ; the rest can then be taken briefly.

Theory and *Fact* are deplorably abused words. 'Theory,' in its proper use, signifies the highest form of knowledge. A speculation, supposition, impression, surmise, expectation, assumption, or mere guess takes, let us say, the more definite shape of a notion or view ; the notion or conception may then become more definite and, as it bears further examination, be formulated as a hypothesis. In like manner, if the observer finds his hypothesis strengthened again and again by methodical observation and experiment, and if again and again it is verified by a continually increasing number of competent observers, it ousts competing hypotheses, if any, and assumes the position of a theory ; as, for example, the Newtonian or the Darwinian theory, the theory of the Conservation of Energy, the theory of Ionic Decomposition ; and so forth. It may be objected that, etymologically speaking, a theory is strictly a 'view,' and may be applied to any contemplative vision of things, wide or narrow. But we have just seen (p. 85) that to throw words back upon their etymology would be to throw the language back into its infancy ; that as a language grows its words become more and more specific, and their uses more and more different. Yet even from Plato onwards the ideas of science and art were disengaged, and the word 'theory' was allotted to the former. Chaucer was correct when he wrote : "The fourth party was to be a theorike,

to declare the meaning of the celestial bodies wyth the causes." Thus as the word 'theory' gained the sense of explanation it lost that of vision. A theory, then, is not any general statement or apprehension, nor indeed absolute truth, but a particular general statement which has been so widely accepted by competent persons that it holds the field. There may be conflicting hypotheses, opinions or explanations, but a general proposition is not a theory until its ascendancy is generally granted; we ought not, then, to speak of 'two conflicting theories' in one field of research. It is needless to say that no general statement, however dominant, however well verified, can be final: of the provisional nature of all theories we have now a remarkable illustration when philosophers of the hour are telling us that it is a 'near thing' for the Atomic theory. Professor Osborne Reynolds or Professor Larmor does not regard his conception of the intimate constitution of the universe as more than a hypothesis, or lofty speculation. That a certain skull is of the Bronze or Early Iron Age, that a certain drawing is from the hand of Matthew Paris, or that Miss Hickman was kidnapped by the Jesuits, may be my opinion; but when a journalist calls such an opinion a 'theory' he impoverishes a language in which far apter words are to be found. A reviewer tells us that in the story of Sir Edmond Berry Godfrey "Mr. Lang himself seems to hanker after a theory of suicide" (!) Yet how much worse is it to use a word of such weight flippantly, contemptuously, as a term of

abuse, or as a mere cliché. A biographer of Virchow writes: 'Virchow had a deeply rooted, constitutional (why both adjectives?) aversion *to* (*from* is far more effective than *to*) all kinds (*all kinds!*) of theories, for he credited nothing that could not be definitely proved.' What a muddle! this of the founder of the *Cellular 'Theory' of Pathology!* If a theory is not proved, what general statement is proved? We have seen that it is in the degrees of proof that a theory surpasses a hypothesis, a speculation, a conjecture, or a guess. To say 'his views are theoretical' is, strictly speaking, the highest tribute to their truth; yet the other day, in an important essay, I read 'There is a certain piquancy in the theory, which Mr. — has shown to be more than a mere theory,' etc., etc. (here for 'theory' read 'conjecture,' or 'speculation'). In another it is written 'The many theories of totemism are but wild guessings in the air.' In another the opinions of an author are called indifferently 'theories' and 'mares' nests.' Again I read 'The question (problem?) has not advanced beyond the theoretical stage' (the stage of conjecture or hypothesis: the theoretical is, so far as thought goes, the final stage). Now it is difficult to realise the evil which this common misuse of the word 'theory' is working in untrained minds, or the vexation it causes to the thoughtful. A scientific paper lies before me, excellent as to substance, which is blunted by the use of 'theory' indiscriminately; in its proper sense, and in the senses of hypothesis (*i.e.* of an explanation or

working notion for which some probability exists, but not convincing proof), of opinion, of speculation, of conjecture, of surmise, and of hasty ingenuities and arm-chair guesses.

No less erroneously it is trivially said of a proposition that 'it is true theoretically but is not true in practice'; yet if theoretically true it must be universally true. It is idle to allege that a certain proposition is true, if it be true only under conditions which never happen! *E.g.* 'The sap may *theoretically* make its way down to the space where,' etc. (which, however, it never does?). Or again, 'There is a theoretical objection to balconies (in sanatoria) that they cut off air and light from the room' . . . which the author proceeds to deny: by 'theoretical' he seems to mean 'baseless'; or does he mean 'negligible'?—from the context one cannot tell, but in either case the word is used absurdly. When a balloon rises gravitation does not become 'practically false.' The manifestation of every general or 'theoretical' law is subject to incidental perturbations and deflexions, but the law never loses its validity, never fails of its effect; inexplicable or unfathomable it may be, evanescent never. What people mean by such phrases may be that a theoretical statement, though valid, is too abstract for immediate practical application; thus theories of barometrical pressure are too abstract to be applied directly to weather forecasts; they are not 'practically false,' but they enter into combinations so many and complex that in particular cases the indications are too obscure

to be useful. In other words, theory is misleading in so far only as it is inadequate theory; the confluence of the useful and of the theoretical is a matter of time. In statecraft similar contrasts are found; as Mr. Bryce has well put it, "The habit of meditating on underlying truths, the tendency to play the long game, are almost certain to spoil a man for dealing effectively with the present. He will not be a sufficiently vigilant observer; he will be out of sympathy with the notions of the average man." But he is far from saying that the underlying truths are visionary or useless.

If we leave the sphere of science we find 'theory' supplanting 'ideal' or 'vision,' a use which in the sphere of literature is no less inept. When Mr. Bryce goes on to write of Beaconsfield's 'fondness for *theories* rather than facts,' and of his putting 'large and imposing *theories* into vague and solemn language,' I suggest that 'ideas,' 'fancies,' 'speculations,' 'dreams,' or 'visions' was the proper word. There are other abasements of this unhappy but, in its proper sense, invaluable word; as various as they are many. A philosopher in a certain review contends that 'Sir F. Pollock has minimised the difference between Dr. Joachim's *theory* and his own as to Spinoza's meaning here'—a *theory* of a *theory*! (for this context *interpretation* was the proper word). We find 'theory' used also for ideas of the imagination, and for myth; uses, however, not so degraded as when, by the War Office, a scheme for cadets is called a theory: 'The *theory* is that promotion takes place (at this

and the other stage), but, etc. For 'theory' read 'assumption,' 'rule,' 'scheme,' 'system,' 'cadre'? Even the *Times*, usually careful in language, calls its device for the sale of the *Encyclopædia Britannica* a 'new *theory* of bookselling'; and suggests to us 'various *theories*' (methods) of indexing. But a remnant is left! In contrast to such naughtiness it is refreshing to note the other day in a review (in *Nature*) of the first volume of the posthumous papers of Helmholtz, as follows:

From its first appearance on the title-page to the end of the book, the word 'theory' is employed in its accurate sense only—to indicate not the hazy guess of a vivid imagination [the reviewer might have said 'the idle guess of an idle hour'], but an attempt at a comprehensive survey and a concise description of facts.

And Professor Noel Hartley (at the British Association 1903) said well:

It was based upon definite observations controlled by exact physical measurements, and was, therefore, a theory rather than a hypothesis.

The proper climax is this: (1) guess; (2) hypothesis; (3) theory; (4) work.

Of *hypothesis* I have just read in a journal, 'This is not a hypothesis, but the result of observations.' It is of no use to wonder what the writer meant; had he ever considered his meaning, he would have asked himself on what else a hypothesis could be founded? By 'hypothesis' he probably meant 'conjecture.'

Fact (for 'truth,' 'proposition,' 'rule,' 'axiom,' etc.). In a leading article in a scientific journal I read, 'No

investigation on these lines can convert a tentative hypothesis into a scientific *fact*.' Even in the essays of eminent men of science we often read, 'Such and such a theory is now proved definitely to be a fact'; or again, such and such a statement is 'no longer a theory but an established fact.' It is difficult to conceive the process of thought, if thought it be, by which such statements are arrived at (p. 41). Another essayist, in denouncing 'cram,' after noting 'theory' as 'nebulous,' says 'cram consists in so many *theoretical facts*, and the student has to get up these facts' (presumably he meant truths, or doctrines? for truth, in science, means a valid affirmative proposition). Now a 'fact' is, in thought, of no value whatsoever; it is only by means of its association with other facts in the formation of general propositions that to the mind a fact becomes valuable. *A fact is something which has occurred*, it has no reference whatever to the future. To say that the sun is shining means that up to the instant of my assertion it *was* shining. That on the 30th of next January Venus will be in conjunction with Jupiter, is not a fact, but a prediction or truth. That in incompetence of the aortic valve blood returns into the left ventricle, is a truth or general statement, not a fact; though such statements are founded upon innumerable series of facts (or past events) in this sequence. So again, that the earth revolves about the sun is not a 'fact' but a general proposition or theory, based upon recorded facts. When an accomplished physician ascribed to Virchow the demonstration of the 'fact' that our

conceptions of morbid processes must be founded upon histological processes, he should have said not 'fact' but *truth*. That a hypothesis may become a theory, we have seen (p. 98); but it can no more become a fact than a house can become a brick. This error of taking doctrines and assertions for facts is a dangerous one: indeed, when I hear 'this is an undoubted fact,' I prepare myself to expect a general proposition uttered with precocious confidence.

Type and *typical* are also words which fare badly in our scientific papers; for instance, to use 'type' in the sense of mere quantity or degree, as that influenza, or pneumonia, has 'changed its type,' is an error. A type is a certain kind of fiction; a physician observes again and again that particular symptoms are apt to recur together: Dr. Graves, let us say, observed an orderly recurrence of a certain group of characters consisting of accelerated pulse, swollen thyroid, protuberant eyes, and so forth. No two instances of the recurrence were identical, it is true; and on classifying the symptoms of the cases by their relative frequencies, this observer found that many of them, such as nervousness, fretfulness, or sleeplessness, are so frequent in disease that their recurrence has no special significance; yet the three signs mentioned before, although severally far less common, recurred in combination with a frequency very much greater than the chances of mere coincidence could account for. Dr. Graves then conceived, as we know, that this association is more than a chance coincidence—more than such a coincidence, let us say,

as the parallel fluctuation observed for a few years between Cambridge Wranglers and the sun-spots; he perceived that they are permanently or 'unconditionally' related, and probably effects of common causes. Furthermore he or his followers began to note that certain other symptoms, such as tremor, are frequent in this combination. Some observers noted that disordered pigmentation of the skin often occurs in the group of phenomena now called Graves's disease, and with more than chance frequency; thus by them leucoderma is said to recur with those symptoms too frequently to be a mere coincidence; others, again, are of the contrary opinion, and so on. The observer then, having brought into comparison all the records he can get hold of, casts aside one by one the features which he is led to regard as incidental, and selects those which recur in such patients with a frequency higher than mere coincidence. Then within his new group he subordinates these in the order of frequency: very few may prove constant, perhaps the one of acceleration of the heart only; others, such as protrusion of the eye or thyroid, tremor, or diarrhoea, though not constant, have severally more or less high degrees of frequency in the group. Thus, by disregarding irregular or intermediate cases, he is enabled to draw a convenient line between symptoms concurrent in higher frequency—'the characteristic symptoms'—and those of low or even mere incidental frequency; and it is with the former that he builds up an imaginary picture or 'type.' Now this conception is attained by a negative or

abstracting process, by stripping off in the several cases what is individual in them. But, as a practitioner, the physician moves in the contrary direction; it is for him to treat the individual, to clothe the conventional skeleton, diagram, or 'type' with the features of the man affected; and to treat not the type—a nonentity conceived only as a device of thought—but the concrete man as he lives. The abstract physician, who treats types, practises *in vacuo*; the empirical physician, on the contrary, having but a vague conception of a type, treats the sick man item by item, not appreciating the relative values of the several phenomena of his morbid period.¹

Now the same considerations apply, *mutatis mutandis*, to types in biology, and we shall agree that types are but artifices of thought, and are to be used as schemes, to include not by any means all the causes at work in a particular case, but certain main lines of causation only; and to signify not by any means water-tight compartments of disease, for by way of aberrant and intermediate cases we may travel from any one such conception to any other, but broad outlines of the landscape of disease; such features as in a landscape would be sketched by the geologist, not by the painter or by the gardener.

A typical feature, then, is not a phenomenon curious in itself, but one characteristic of a kind; it

¹ Some diseases are more variable about their 'type' than others; and it would be interesting in respect of species and regression to work this comparison out, not in the diseases of man only. But I must not be tempted beyond the limits of our present purpose.

is more typical or less so in the degree of frequency in which it occurs in this or that abstract idea of a disease; it indicates an area of greatest density in certain recurrent series.

But here is a confusion in language: type is sometimes used for *example*; for instance, 'He is the very type of an Irishman,' or 'He is a type we should do well to imitate'; but by this we mean that having built up from many Irish persons an abstract conception, or type, of the kind called Irishman, we light, let us say, upon Sheridan, who fulfils our idea so vividly and completely that we clothe the vision with life. To impersonate a type gives us a picture we would not willingly forgo; and, if the antithesis be not forgotten, the gain to the fancy may be more than the loss to the understanding. Nevertheless we shall avoid such fallacious phrases as an 'aberrant type,' which is absurd; or 'there is an inconstancy of type,' when we mean either that our examples are unconformable, or that our segregation of proper characters is as yet incomplete. Of a case we may say that it is aberrant when it deviates unusually from our mental diagram; or of another, if we find ourselves unable to relate it to any type whatever, we may say it is 'atypical'; but we must not confuse these words and call a case 'atypical' when we mean only aberrant.

Entity is a word which is making its way back into science, especially into medicine. Physicians take grave counsel together whether such and such a nosological series does, or does not, constitute a

'morbid entity.' Now in any use, antique or modern, entity must mean real existence or 'substance' behind a group of phenomena, or 'form,' as in this context—'whereby it is apparent that the *vis* or energy that is in natural bodies is an entity of a distinct nature from matter simply as such,' and so on; in other words, to the kind itself is attributed a real existence, apart from the individuals of the kind—an ancient ghost one supposed had been laid by William Ockham some six and a half centuries ago.

The Greek Aristotle, as distinguished from the medieval Aristotle, was probably of opinion that a kind has indeed a sort of reality, as a conception of the observer's mind; but as such a conception only. If, then, by the inquiry whether a nosological series be an entity or not, we seek only to know whether it be constant enough for formulation as a conception in the observer's mind ('Type,' p. 102), well and good; but it has not been customary to call a concept an 'entity.' And I suspect for their entity nosologists mean not to be content with so elusive a reality. They may not be dreaming of substance apart from phenomena, but I suppose they would suggest that this or the other disease has an individual existence, as of a dog or a cat. We may call a dog an entity if we like, though no one does: but we certainly do not, as biologists, speak of the canine species as an entity. And a disease is not even a species; it is but a phase of change to which the individuals of species are more or less subject. As a matter of experience we find

that Man, at any rate, is not ill anyhow; he falls ill on one or other of certain different lines, lines which are determined in part no doubt by the lines of his normal structure, in part by peculiarities in the causes of disease. Although no two cases of typhoid fever, of malaria, or of pneumonia are identical, they are similar; their similarity being due in part to the similarity of man to man and of organ to organ, in part to the similarity of their respective microbes. If I spin some similar tops and, when they are asleep, strike them, and strike them pretty much in the same way and in a moderate degree, so much in the same way they will fall ill: some may wobble beyond recovery, but most of them will recover, and in approximately equal periods. So a case of typhoid fever, malaria, or pneumonia is a product of a kind of deflexion by a special external disturbance and the inertia of the afflicted individual. Where is the entity?

It was in the paper of no tiro that I noted the other day, 'I regard the cause of an infectious disease as an entity in itself, something foreign and external' [why both adjectives? (p. 121)]. Here confusion is worse than ever, for the cause of a disease is certainly not the disease; and it is the latter which is usually intended by the 'morbid entity.' And surely it is pedantic enough to call arsenic or lead, for example, 'entities in themselves'? Another physician, no less eminent, writes, 'Whether we regard the symptoms as an entity, or merely as a syndrome occurring in divers affections'; a sentence surely a long way from clarity!

The right question is this: Have I noted in a moving equilibrium, say in Man, that a certain series of changes, static and dynamic, has occurred more than once; if so, was the recurrence still fortuitous, or was the series a case of an orderly recurrent mode, which hitherto had escaped attention? If so, the recurrence will be observed again and again, whether by myself or by others, in approximate uniformity. The cases of the newly observed series will vary, some indeed so far as to trespass upon other nosological series already recognised, and no strict demarcation can be drawn around them; yet there may nevertheless be difference enough and constancy enough to make it worth our while, for the convenience of observation and thought, to erect the new series into a category of its own, and to stick a label on it? We shall demand, then, no more than this: Does the series recur with uniformity enough to make it desirable for purposes of identification and comparison to name it; as, for our convenience, we name a uniformly recurring set of stars, Orion or Charles' Wain?

The following casual list of words which suffer misuse is but illustrative, to put candidates on their guard. I had strung most of them together from theses for degrees, before I knew that in his *Errors in the Use of English* Dr. Hodgson had covered the ground so fully.

Acceptation (the being received) for 'acceptance' (the act of receiving). A gift may be offered for acceptance in the belief that it is worthy of acceptance.

Actual (for 'precise,' etc.): e.g. 'the actual number was

ten'; 'such was the actual case in question,' and so on. 'The actual death was by exhaustion' is a curious example (for the precise mode of death?). We shall see (p. 124) that 'actual,' like 'in reality,' often a maid of all work, is for the most part redundant.

Alternative primarily was not used of more than two, but by recent writers (*e.g.* Mill and Gladstone) the word is used of three or more. The extension is convenient, and justifiable.

Antedates, used for 'precedes,' means to put a date back, as on a document. "By what would appear an antedated gratitude" (Boyle).

Appreciation is an estimate—a setting or comparison of price or value: not a raising or a rising of value.

Averse to: a mimicry of 'adverse to.' 'Averse *from*' is correct, and is far more effectual.

Avocation. During the last few years, probably in the pursuit of fine language, this word has taken the place of 'vocation'; whereby a valuable distinction is lost. Even Ruskin has written 'in pursuit of their ordinary avocations.' 'Avocation' is the calling away from an occupation; *e.g.* 'What is a scholar but one who retireth his person, and avocatheth his mind from other occupations.' In these two recent instances it is used effectively: 'Here I enjoy profound retirement, safe from the interruption of troublesome avocations.' 'Outside his profession the physician should pursue some hobby or pleasant avocation.'

Between (by twain) should be used of two things only. We may not speak of 'stirring up ill-will *between* (amongst) all these various races.' An example of another kind of error in the use of this word is 'between the junction of the two rivers' for 'between the two rivers at their junction.'

Capable; in a passive sense: *e.g.* 'The salts are *capable of being* absorbed by the membrane' (for 'The membrane is capable of absorbing the salts'); 'This morbid process is *capable of being* cured.' **LIABLE**; in similar error: *e.g.* 'Bronchitis is *liable* to occur' (for 'the patient is *liable* to,' etc.); 'This fungus is *liable* (apt) to cause a blight'; 'His irregular habits are *liable* to injure his business'; or again, very absurdly, 'The geological strata most liable to cancer,' etc., etc.

Case (for 'patient'): *e.g.* 'the case recovered'; 'the case is living and in good health'; 'cases which could not take such large doses.' 'Five of the empyematas died' is a similar piece of clumsiness; but the grimmest blunder of the kind is 'Of the 276 *deaths* 16 *had* gallstones.'

Claims (for 'says,' 'maintains,' or 'asserts') is an unfortunate following of the Americans, who in many cases retain uses of words far better worth our imitation. To 'claim' such and such a result is not suggestive of a modest and diffident search after truth.

Climax (as 'acme' or 'summit'); a modern abuse unknown to Samuel Johnson. The 'climacteric period' is not the acme of life, but the upper slope of it. In fine prose the rising and enlarging purport of the sentences of a period or oration are called by grammarians a climax (*κλίμαξ*, *scala*). Thus the accurate Berkeley speaks of 'a certain climax or gradation of thought.'

Commence (for 'begin'). 'To commence' is proper for formal public functions and the like: *e.g.* 'the term commences' or 'the session commences'; so 'an action at law commences,' 'a career commences,' and so forth: to say 'I had just commenced my breakfast' is ridiculous.

Compare to may be as correct as 'convenient to,' but 'with' is more expressive.

Compensated for. 'The defect in the valve is compensated (for) by the growth of the muscle'; here 'for' is not only redundant but also perverse; as it would be in the sentence 'The apples are balanced *for* by the weight in the opposite scale.' In the sentence 'I compensated him *for* the damage done' the preposition is correctly inserted.

Constant is often used for 'frequent' (*vide* p. 125).

Continuous is 'uninterrupted,' 'unceasing'; continual 'an incessant renewal'; *e.g.* a continuous hum, or a continual hubbub: at any rate such is the best usage.

'Contrary,' 'conversely,' 'reversely,' 'vice versa' are not to be used indifferently. It is correct to say 'On the contrary I do not approve, I deny that assertion.' But in the sentence 'The sensation of hunger is not due to the mere emptiness of the stomach . . . ; *conversely* under abnormal conditions we may feel hungry on a full stomach,' 'con-

versely' should be *reversely* (conversely would be 'The emptiness of the stomach is not due to the sensation of hunger'). A political speaker said the other day, 'If you wish to keep your Empire together you must have preferential tariffs,' and proceeded to urge—what he called 'the *converse* proposition'—'If you preserve free trade you cannot preserve your Empire'—but this is the reverse proposition: the converse would be 'If you wish to have preferential tariffs you must keep your Empire together,' and the contrary would be 'If you wish, etc., you must *not* have preferential tariffs.' The horse may be put before the cart, or *reversely* the cart may be put before the horse; but in the sentence 'As the tide flows up the channel there is flowing along the shore a current in the reverse direction' read 'up the channel . . . a contrary current flows along the shore,' for the current, though opposed, is not 'reversed.' (This sentence errs also in 'Indirect Construction,' *vide* p. 56.) Again, 'The specific identity or the reverse of these two forms,' etc.—what is the reverse of specific identity?—should read 'The specific identity or difference.' 'The Mayor may take the chair, and the Vice-chancellor may propose the motion, or *vice versa*' (i.e. 'turn about'), is correct, but it is erroneous to write 'Whether the peritonitis set up the pleurisy or *vice versa* (conversely) we could not decide'; and such errors bother the reader. We may contrast these several meanings by varying one sentence, e.g. 'Every person who was attacked with typhoid had eaten watercress.' The contrary proposition would be 'No one who was attacked had eaten watercress.' The converse proposition would be 'Every one who had eaten watercress was attacked by typhoid.' The reverse would be 'No one who had eaten watercress was attacked by typhoid.'

Desirability and undesirability, undeniability, etc., if we cannot reprehend, we may look upon coldly, and **reliability** is worse still. The *Times* recently began an article thus: "'Reliability' has no meaning in English, for there is no such word; in 'motorese' it means," etc., etc.

Develop (for 'manifest,' 'appear,' 'arise,' 'take place,' etc.) is often used for retrograde processes; e.g. 'she developed emaciation' or 'a bedsore'; 'he developed a cavity in the lung,' 'a cough,' or 'a rash on the skin.' As such processes

are of the nature not of development but of demolition, the eye of the mind is put backwards.

Different to, an error for **different from**. A like error is 'different *than*' (for *other than*); e.g. 'They had a different notion of books than their fathers had.'

Differentiate is now applied to the phases of evolution, and it is neither necessary nor desirable to use it for 'to distinguish,' 'discriminate,' or 'contrast'; as in 'He differentiated its toxic effects in the rabbit from those it produces in man'; here the differentiation lay not with the observer, but with nature. Or again, with less excuse, for *separate*: e.g. 'The fibroid was sharply differentiated (separated) by a thin capsule from the surrounding tissue.'

Dis(as)similation seems too bad for any one, but it appears not rarely in our theses: happily the word is not wanted.

Either (which properly signifies any one of two), for 'each' or 'both'; a vexatious error; as e.g. 'Tie the vessel on either side (for *both sides*) of the place of section.' 'The pulses are equal at either wrist.' 'If we cut a piece out of the stem of a polyp . . . a head is formed at either end' (both ends? the context does not decide). I read lately, 'Air is given by ventilators at either end of the room'; here again from the context I could not decide the meaning. 'On either side of her walked a tall gentleman in military dress' (dodging to and fro?) 'Each' seems to be slipping out of memory. It is no answer to appeal to the primary meaning of *either* (*vide* p. 85); the word is now distributed, and the need of the distinction is pressing. There is a sense, however, in which *either* may be used effectively; i.e. when the alternatives are not contemplated together, and this diversion of the attention 'either' may indicate conveniently or picturesquely: e.g. 'As we sailed up this great river a magnificent landscape was spread forth on either side of us' (as we gazed, that is, to the right hand or the left). If 'either' is used as one of three or more, the alternatives must be carried forward by repeating 'or.' We may not say that 'he may take either of three ways'; but that he may take 'either this way, that, or the other.'

Equally with (for 'as well as').

Except (for 'unless'), as in 'except (unless) you want me to.'

Female (for 'woman') is, speaking generally (in spite of Scott), disagreeably zoological.

Firstly (for 'first'). 'Secondly,' 'thirdly,' etc., are correct; but 'firstly' is not in good usage.

Identical (for 'akin'), as in the sentence 'We may regard pneumonia and cerebrospinal fever as identical,' an absurd but very frequent blunder. In the sentence 'A, B, C, and D having thus a similar effect are respectively identical,' the word 'respectively' makes the identity still harder to grasp.

Individual, for 'person,' is slovenly when the precise meaning of the word (as single or disconnected) is not required; *e.g.* we rightly distinguish between a crowd and the individuals of whom it consists. 'Who have not a single vote amongst them, collectively or individually'; 'That individuals die his will ordains, The propagated species still remains'; are sentences in which the use of 'individual' is correct and telling.

Lengthy, an inelegant exchange for **long**. 'This is a lengthy question' (for 'a long inquiry'). It is worse than inelegant to say 'lengthened' for 'long,' *e.g.* 'a lengthened period' (for 'a long time'). A lengthened period means an extension of it; *e.g.* a lease may be lengthened from seven to fourteen years.

Limited (for 'small,' 'slight,' or 'narrow'): *e.g.* we should not write 'a limited acquaintance,' or 'a limited field of vision': 'limited' is that to which limits are, or have been, set; as 'thenceforth his limited ambition was content,' etc. 'The epidemic raged in a limited area' is wrong; but 'By these means the area of its activity was limited' is correct.

Natural (for 'normal'); *e.g.* 'the heart was natural,' when no one had alleged that it was factitious: unfortunately all disease is 'natural.'

Never (for 'not'). 'I never remember to have seen' means 'I always forget.'

Numerous and **many** deserve some discrimination; it is better to prefer 'numerous' for subjects consisting of many parts: *e.g.* to speak of many persons but of a numerous crowd.

Obnoxious (for 'noxious').

Only and **alone** (*vide* p. 83). 'Alone' is often used incorrectly for 'only,' and *vice versa*: e.g. 'Only my son got a prize' for 'my son alone,' etc. No doubt 'only' and 'alone' may have an almost identical sense, as in 'I only am escaped alone to tell thee' (yet here the 'alone' is not emphatic only, but suggests also a perilous flight). In the next sentence, from a well-written scientific paper, these words are accurately contrasted: 'It is the *only* reagent by which *alone* the effect can be produced.' 'You alone stood by me' is right—'You only stood by me' suggests that you might have sat down.

Operable is wanted and may be admitted; although 'operator' is the verb.

Otherwise means not a negative but after another fashion, or in another way. 'Their success or otherwise,' or 'its presence or otherwise' is nonsense. The sentences should be 'their success or failure,' 'its presence or absence.' 'The necessity of the step or otherwise' is a bad expression for 'necessary or unnecessary.'

Owing to—when no debt should be implied: e.g. 'We use this test *owing to* its being simpler' (for '*as it is simpler*'). So again, 'Owing to (as) the ordinary medical attendant being (was) from home.'

Paradox. I often read 'it seems paradoxical to say so.' Paradox consists in the *seeming*; if there were no such seeming there would be no paradox.

Partake. To partake of a meal, etc., is to *share* it with others.

Period (for 'date' or 'time'): a period is a certain course (of time).

Phenomenal, for 'wonderful,' 'miraculous,' is very inept.

Predicate (for 'predict'): as in 'You may predicate (!) the result of such conduct.'

Preven(ta)tive; a common blunder.

Quite a number is not *quite* so absurd as *quite a few*; but both are among the 'dumps' from America which we can do without.

Regular, as a mere expletive: e.g. 'The operator found himself in a *regular* difficulty.' 'The man proved to be a

regular malingerer. 'Close-fisted as he is, he is a *regular Cræsus*.'

Replace, for 'displace,' 'substitute,' 'supplant,' 'succeed.' To replace is to restore. A king may be replaced on his throne or he may be displaced, and succeeded by another. We may speak of displacement fibrosis of an organ; not of replacement fibrosis. 'The molars were entirely replaced by a few old stumps' (for 'replaced' read *represented*). So again, not the disease but the patient *relapses*.

Requires; used as follows: 'The surgeon *requires* to be careful' (for 'it is required of the surgeon,' or, still better, 'the surgeon *must be* careful'); 'This knife *requires* to be (must be) kept for cutting onions.'

Rudimentary, in the sense of 'degraded' or 'vestigial.'

Separate out (for 'set apart' or 'divide') is inelegant.

Singular or **unique** (for 'rare' or 'notable') is careless; as is **extreme** for 'much' or 'considerable.'

Small and **little**, and many other such common words which cannot be severally cited, should not be used indiscriminately; *e.g.* we speak of a small parish but of a little lad.

Surroundings is in ordinary cases an ugly substitute for 'circumstances.'

Than (for 'when'). 'I had scarcely turned my back *than* he fell back in a fit.'

The latter (for 'the last') must not be used when more than two are concerned. A like error is to use the superlative when two only are concerned: *e.g.* 'She was the *eldest* (elder) of his two daughters.' 'You may tie it above or below but the *last* is the *best* way' ('the latter is the better' would be grammatically correct, but not pretty; the sentence should be altered). 'The former' and 'the latter' are used too frequently: *e.g.* 'The former is the sense of an active exertion, the latter is the sense of relaxation after exertion' for 'That is, etc. . . . this is, etc.' (p. 52).

'In my **then** circumstances,' and 'in his **seldom** use of it,' are very slovenly writing, and a misuse of words.

Together with and **in addition to** (for 'and,' 'besides,' 'moreover,' etc.), if not erroneous, are tiresomely frequent.

To lave may I think be admitted (on the analogy of 'to manage,' etc.).

To lie and to lay: 'He lay (laid) down in his wet clothes,' 'This notion underlay (underlaid) his speech,' are instances of vulgar errors which still reappear.

Traumatism (for 'trauma,' itself a somewhat pedantic word); traumatism is of course the result of the 'trauma'—the condition produced by it.

Veracity is not truth but the faculty of truthfulness. We speak of a veracious person, but not of a veracious proposition.

Verbal (for 'oral'): e.g. 'a verbal (oral) message'; a written message can hardly avoid being 'verbal.'

Without (for 'unless'): e.g. 'I was not to go without (unless) my mother gave me leave.' *Without*—for 'without taking into consideration,' or 'not to mention'—is a vexatious use, increasing of late. It is too elliptical. The following sentence from a thoughtful but unskilful writer puzzled me for some minutes: 'It is hard enough for the modern artist to paint a naked body accurately *without* putting his own dreams and passions into it: Michael Angelo did this.' Michael Angelo painted the body without putting his dreams and passions into it! Gracious! At length it occurred to me that by 'without' the author meant *without taking into consideration*—'let alone,' as we sometimes say. Thus 'to paint the body accurately, let alone putting' etc., would read clearly enough.

It is no misuse or solecism (as is often alleged) to make a compound word from two languages: such an objection to 'appendicitis,' for example, is not to be sustained; for 'itis' is an affix, as is 'ly' (like) in English which is regularly attached of course to words of Latin or Greek origin, as in 'divinely,' 'grammatically,' etc. Indeed, a contrary rule would eviscerate our language. Cf. e.g. the different meanings of *remissness* and *remission*, *distinctness* and *distinction*, *diffuseness* and *diffusion*, and so forth. The fault of '*relationship*' is not hybridity but superfluity; 'tion' and 'ship' being equivalents, or nearly so. Again, 'ism,' a Greek termination, is properly affixed to words of sundry origin.

Some specimens of *superfine language* may be quoted as of too frequent recurrence in our theses: 'Previously to' (for 'before'); as, 'I had not seen him previously,' 'This is his method of procedure' (said not of a laboratory process, or the like, but for 'that is his way'); 'The patient *experienced* a pain in his side'; 'His strength *was reduced to a vast extent*.' So 'eventuate' (for 'issue'), and 'literature' (for 'scientific records' or 'papers'). In a thesis before me the candidate writes, 'And I should sustain the metabolic processes of the individual'; by which, as the context tells me, he meant no more than 'I would feed the patient carefully.' I earnestly advise the student to examine technical gibberish suspiciously, and to avoid it if he can. Why 'post-mortem' when no more is meant than 'after death'?

The truth is, when a young writer sets himself to literary work he is often misled by a false notion of composition. That in the first place he shall fill his mind with as much experience as he has been able to gather, and that before taking up his pen he shall dwell in thought upon his matter a while, until his subject projects itself in clear outline, we are all agreed; thus far he does well. But when he takes pen in hand he is apt to search still abroad instead of within. He conceives that to express himself effectively he must fetch words from afar, and weave them into highly complex webs. But if with a single eye he will meditate on his garnered material he will find it building itself without hands in the forms of his own temperament.

When we talk of 'objective truth' we talk, of course, of what cannot be. The material must go through the factory, and as our factories are different the produce cannot be all the same. The writer who substitutes products from another factory interests no one; even in science the personal factor is welcome. However young, then, the essayist may be, if write he must, having looked abroad first, let him then look within. Let him not search afield for long and complicated forms and elaborated words, nor for large and decorated vestures; if he can get well home on his ideas the simplest and closest words will do. Let him see not how finely but how plainly and directly he can express himself? If, stripping off all encumbrance, he will look nearer home for his words, and put these together as concisely as he can, the figure of his thought will move more freely, and will animate a lighter drapery.

What word-mongery can attain such effects as these, where the words are of the very simplest?

Awake, O north wind; and come, thou south; blow upon my garden, that the spices thereof may flow out.

Let's make medicines of our great revenge, To cure this deadly grief.

Blasts that blow the poplar white.

An ass hath need of all his trappings.

How is it these simple words are so telling? Because the thought which informs them is vivid, complete, and concise.

By two larger examples—one in prose and one in poetry—I will illustrate more fully the energy,

and the poignancy, which may lie in the very simplest words :

He lifted up his shining sword and stroke him so main a blow as therewithal his head clave asunder ; so that he fell stark to the ground.

O he's gane down to yon shore side,
As fast as he could fare ;
He saw fair Annie in the boat,
But the wind it tossed her sair.
" And hey Annie, and how Annie !
O Annie, winna ye bide ! "
But aye the mair he cried Annie,
The braider grew the tide.

Fine thoughts are not to be caught by fine words.

Certain Latin phrases are often dragged into use, and not rarely with erroneous meanings ; such as '*vera causa*,' '*crux*,' '*a priori*,' etc. '*A priori*' does not mean 'at first sight' ; nor does it mean 'without special knowledge' : it signifies a certain method of reasoning which the student is better without. A '*crux*' is not a conundrum, nor an impediment, nor a complexity ; still less is it an affliction : a sick club may be the cross, but is not the '*crux*' of its physician. A '*crux*' is a signpost, and 'a crucial instance' an arm of it. What Bacon meant by *vera causa* not even Mr. Spedding could tell us precisely ; but he certainly did not mean efficient or proximate cause. So far as philosophers use the phrase, they use it in the sense of a cause capable of producing some such effect, but either not known to have preceded the particular effect or inadequate to the full consequences : treacherous ground even for philosophers. *E.g.* the rotation of the earth may

be called a *vera causa* of the wash of a river against one of its banks, but this effect is probably inappreciable. Not rarely in our theses it is associated with the phrase '*causa causans*,' which, again, is a rag of medieval dialectic, and properly signifies a First Cause. Other instances of such errors are: 'He is a person of no little *locus standi*' (said of a person of position); '*per se*' (for 'alone'): e.g. 'He was suffering from bronchitis *per se*'; '*seriatim*' (for 'seriously'): e.g. 'But *seriatim*, my dear Grove, *seriatim*!' Other scraps of Latin such as '*fons et origo*' are often used grotesquely if not erroneously: e.g. 'the *fons et origo* was a tape-worm'; or 'this site of infection was the *fons et origo* of the illness'—the site may have been a *fons*, but scarcely the *origo*. We often read, in a metaphorical sense, that missionaries were sent '*in partibus infidelium*' (as if to convert the heathen), a prevalent error I have never seen corrected. In this sense '*partibus*' would be '*partes*.' But a bishop *in partibus infidelium* was, I regret to say, by no means an evangelist, but a bishop taking his title from a land so faithless that he might live at his ease in Rome.

Tautology.—A notion is prevalent in genteel academies, and is in some favour among authors of essays, that the repetition of a leading word or words in a sentence, or short period, constitutes an offence called 'tautology.' In this false sense of tautology the mathematician might incur censure for the repetition of symbols in an equation. If the word first accepted be precisely the word wanted, to vary it is to vary the sense, to confuse

the argument, and to vex the reader. For example, an able author writes, 'The subject presented itself to me in another *form* ; in this *way*,' etc.; here the reader, who has been prepared for a form, is thus confronted unexpectedly with a path. In another able paper I was bothered to read that

The sign *x* marks the *beginning* of, etc., etc., . . . *y* marks the *commencement* of, etc., etc., . . . *z* the *occurrence* of, etc., etc.;

and in another :

In the first series the reaction was *present* on 37 occasions, in the second series it *occurred* 32 times, while in the third it *was observed* in 27 instances.

Here, for the same form of proposition, both the words and the order of clauses are irritatingly wayward. Thus to avoid 'tautology' is to become confusing and tiresome. Above all intolerable is what Henry Sidgwick used to call 'the ornate alias'; when a church is indicated as 'that sacred edifice,' an oyster as 'the succulent bivalve'; and so forth.

As a literary offence, tautology means not the return of a particular word in proper places, but an idle reiteration of meaning, a superfluity of thought or word, any repetition whatsoever which is ineffectual; or again, an early recurrence of the same word in a different sense. Reiteration may be a means of effect, as 'Quietly shining to the quiet moon'; or Mark Antony's 'For Brutus is an honourable man'—a tremendous 'tautology.' Here is a useful instance: 'That the Gothic architecture of Venice *had arisen out of, and indicated in all its features,* a state of pure national faith and

of domestic virtue; and that its Renaissance architecture *had arisen out of, and in all its features indicated*, a state of,' etc., etc. Here, by keeping to the very words, precision and sequence are gained; but note the tact which, by the inversion in the second clause ('all its features indicated'), avoids monotony. The iteration which disfigures not scientific papers only but also the larger part of public writing and speaking, is such tautology as 'It gives me great pleasure (and satisfaction)'; 'To it (alone) I shall confine myself'; 'He was a man of great resolution (and determination)'; 'Mutual reciprocation'; 'We are (both) agreed'; 'The smallest possible (minimum)'; 'Failure (and loss of power)'; 'This noble (and magnificent) edifice'; 'The *glitter* of weapons and the *flash* of arms'; 'The noiseless (and inaudible) foot of Time'; 'It is (owing) to this that the appearance is due'; 'An (unfounded) ealumny'; '(Hot and) burning words'; ('Fervid) zeal'; '(Too) premature'; '(Very) extremely'; '(Very) superior'; 'More capital will be necessary, but less skill (will be required)'; 'The (old) veteran showed both magnanimity (of mind) and equanimity (of disposition)'; 'The disease is often (an) epidemic (one in many instances)'; 'A (universal) panacea for (all) evils.' 'It was (want of) imagination that failed him' is of course a blunder rather than a superfluity; as is this from a thesis on my table, '*As a rule* it will be *invariably* found.' I take from a paper also before me, one almost unreadable but with much fertile matter in its

muddy stream, 'In consequence of a large rural population in (contra-)distinction to an urban one'; clumsy tautology for 'a population mainly rural.' Some distinguished authors, rhetorical authors especially, such as those of the seventeenth century, are prone to tautology: *e.g.* 'Infinite riches and plenty, a redundancy and overflowing fulness' (Cudworth). Southey resents the passage, 'The key my loose powerless fingers forsook' for 'I dropt the key.' 'The sick man disliked questions and disturbance.' Redundancy may no doubt be distinguished from tautology; and in rhetoric some redundancy may be a virtue. Gladstone's style, for instance, was redundant, yet tautology was not one of its faults; his sentences were often heavy with adjectives, but they bore no useless burdens. Blunt and careless readers are apt to overlook the nicety and variety of his choice, yet, even in speaking, every expletive carried its own weight. Burke, with more genius, was in this kind of subtlety below Gladstone; Gladstone would have been incapable of saying '(fat) stupidity and (gross) ignorance'; wherein neither adjective quite pays its way; nor would Gladstone or Bright have talked of 'bowing down the [stubborn] neck of their pride [and ambition] to the yoke'; or of 'working from dawn to dark in the innumerable servile, [degrading,] unseemly, [unmanly,] and often [most unwholesome and] pestiferous occupations.' Suspend in these passages, as I have done, every word which does not tell, and note how much, as written prose at any rate, the sentence is lightened and strengthened;

how much more nervous it is! If in adjectives redundancy is most frequent, yet nouns substantive offend also. In this example, 'His conduct provoked neither comment nor censure,' two emphatic nouns overlap. In poetry, where emotion is highly strung, we are very exacting: in the line 'This was thy wisdom, this thy glorious work,' we perceive that a clearer poetic vision would have seen that these predicates jostle each other. Emphasis or impressiveness by repetition is much more skilfully attained when the phrase is so changed as to set it in another light; and if the second clause be otherwise constructed it is still more effective, thus:

The heathen are come into thy inheritance; thy holy temple have they defiled, and made Jerusalem a heap of stones. The dead bodies of thy servants have they given to be meat to the fowls of the air; and the flesh of thy saints unto the beasts of the land. Their blood have they shed like water on every side of Jerusalem, and there was no man to bury them.

Here is iteration and reiteration; but on each return the idea comes back charged with a new and more awful intensity (*vide* 'Emphasis,' p. 126). To enable us to realise the intensity of this description a small part of it might profitably be translated, let us say into the language of the war correspondent of the *Daily Telegraph*.

It is no doubt in imaginative or rhetorical prose and verse, rather than in scientific writing, that successive clauses may thus be charged with accumulating strength or variety; yet even in scientific writing there may be a place for persuasion as well

as for force and precision. Not mere iteration then, but iteration without gathering of energy or meaning, is the tautology we have to avoid. It seems often a little hard to cut out words which, as we wrote them, seemed to be happy and effective (p. 140), but which on revision we perceive to be out of proportion, misplaced, or exuberant; yet we must be each of us his own severest master. *E.g.* in this sentence, 'Then we were surrounded by a beautiful *mist* or *atmosphere* of sound,' the accomplished author should have sacrificed one of the words in italics.

Most frequently, however, it is to a litter of idle words that slackness of style is due (*vide* p. 91): such litter as this, 'they have made up their minds as to what was the true method'; 'the question which now arises then is this'; '*as to* how'; '*as to* whether' (*e.g.* 'it is a much disputed point as to whether,' for 'it is disputable'); 'it remains to be seen in how far'; 'having regard to the fact that,' or 'from the fact that' (for '*as*'); 'the question as to the meaning of the theory as to the involvement of'; 'no doubt it will be able to be got rid of'; 'will lead to a correct conclusion (being made)'; 'if such a property of matter can be conceived [of]'; 'quite the whole of it' or 'quite entirely'; 'more preferable'; 'the smallest possible minimum'; 'they are closely connected [with one another]'; 'there was dulness found,' or 'there was noticed to be impairment of resonance' (*vide* p. 56); 'we found [that there was] an increase of acidity'; 'to which there may be added some pain'; 'are

impossible [of being performed]'; 'yet it does not follow that it is impossible to' (for 'it may nevertheless'); 'this palsy prevents the adduction of the vocal cords [being brought about]'; 'he was attacked with asthma immediately *on coming into the proximity of a cat*'; 'an error is being fallen into'; 'John went out [owing to] James having come in'; 'this requires to be made an exception'; 'but there is a lot of doubt attached to this'; 'the personal history gives a history of injury to the head'; 'a short historical account of [how] the present method [was arrived at]'; 'his position was by no means [of an] enviable [character]'; 'regurgitation back again'; 'later *on*' (on what? a confusion with *farther on*—of time with place); 'he put us off on to a wrong path'; '*in* between,' and '*at* between'; '*at* about this time'; 'divided *off*' or '*up*'; 'follow *upon*'; 'trained *up* to'; '*out* of the six cases there were four,' etc.; and so on, to infinity. The grotesque phrase 'signed up for' is adopted in a recent university report. 'Rather' is often redundant: *e.g.* 'it is better to give it up [rather] than to do it unskilfully.' 'It is more becoming to speak frankly [rather] than to elude inquiry.' The redundancy of *ands*, *buts*, *whiles*, *sinces*, often gives a flabby form to writing otherwise good: *e.g.* 'sometimes we hear of this as present, [and] sometimes as absent' (*vide* 'Punctuation,' pp. 147, 148). Of useless expletives 'real' and 'actual' (p. 106) are perhaps the most frequent: *e.g.* 'this was the [real] beginning of the story'; 'when [in reality] he had not spit blood'; 'during an [actual]

attack'; '[the actual] death took place from exhaustion'; 'such was the [actual] cause' (here such an adjective as 'remote,' 'proximate,' or 'immediate,' may have been required, but too often such words are mere padding). The following sentence is very flabby, redundant, and inaccurate:

Or a theory has been believed [in], and a cause assumed [to act], when [in reality] there was little or no evidence of its presence; [and] scrofula has thus been treated, and considered causal in many cases where scientific evidence is wanting.

It should have appeared as follows:

Or an assumption, as of a scrofulous element, has been made of which there was no proof.

Frequently, however, padding is mischievous as well as superfluous, as with adverbs falsely used; such as 'certainly,' 'constantly,' 'undoubtedly,' 'therefore,' 'of course,' 'perfectly,' and the like, when certainty, constancy, proof, or perfection are remote enough. Some expletives in common use are always wrong, such as 'most constant' (as if one should say 'more square' or 'more circular'): *e.g.* 'the pain was most constant' (for 'incessant' or 'persistent').

Gastric ulcer is a disease *constantly* associated with hæmatemesis; in some cases, however, there has been no hæmatemesis,

is a sentence which should have run thus:

In gastric ulcer hæmatemesis is frequent but not constant.

The early repetition of the same word in a

different sense is a very vexatious tautology: *e.g.* 'This effect is relatively easy to effect'; but its ineptitude is too apparent to need more illustration.

Emphasis.—We have seen that tautology is the dissolution of emphasis, and writers who distrust their own skill are wont therefore to mark emphatic words or phrases by underscoring (*italics*). In handbills, letters of business, and the like, this device is well enough; indeed it may be needed for the carelessness of the reader, if not for the weakness of the writer. In more formal prose, however, it is a poor compliment to the reader to suppose him either to be lacking in intelligence, or unworthy of your pains; for with the pains which are due to him you can drive your main purposes home by purely literary devices, as a conjurer 'forces' a card. (*Vide* p. 69, *Times Adv. Encycl. Brit.*) This end may be gained as follows: by *placing the emphatic word at or near the beginning or the end of the sentence*; by breaking the customary order of the words; by suspension; by summary; by using some choice word—for such a purpose the use of an exquisite or obsolescent word, or a familiar word in an obsolescent sense, is free from affectation, if the purpose be attained; by the use of the subjunctive mood when doubt is to be emphatic; by cadence, especially if the emphasis is to be carried by the clause rather than by a word of it; by alliteration or assonance; by reiteration—a method much, perhaps too much, affected by Matthew Arnold,—or by elusion of reiteration; by epigram; and lastly, a subtle and effective way, by some

inversion of an order of expression in a foregoing similar clause. There may be other devices; I have not gone beyond my own somewhat haphazard notes, and these will suffice. Whoso can use these means well can use all.

I have examples of some of these devices at hand.

Emphasis by position. The reader may turn to many an example in the previous parts of this book: e.g. p. 82, and elsewhere.

Emphasis by order of words: 'true it is'; 'die he must'; 'silver and gold have I none.' 'If you spend the day fruitfully you will rejoice in the evening' is a bad order, as the cardinal words hang behind; till you have finished the sentence you have got nothing. Compare this with the original (Latin) order, 'Vespere gaudebis si diem fructuose expendas,' and note the gain; the time comes first according to the rule of syntax; the joy, which is emphatic, comes early; next the doubt on which hangs the joy, and with it the time of the next clause; finally the main condition on which the joy is to be had.

Emphasis by choice word or choice sense of a word: 'After this obstreperous welcome, and this equivocal display, such friendly tones were indeed *grateful*' (note also the gain of a minor emphasis by repetition of 'this'). 'Beside these higher considerations such an argument as that appears in its just *impertinence*.' 'This I will maintain before my adversaries, all and *several*.' 'Who might, instead of being the benefactor of mankind, be its *bane*.' 'He

- knew better than to cast off those *gyves*.' 'Thus already the new agriculture is growing *hoar*.'
• 'Expressive silence alone could *muse* his praise.'
• 'The minster is a great *habitable* of birds.'

Emphasis by the subjunctive is the stronger as the use of the subjunctive becomes less frequent: 'This assuredly he will do, if he survive her.' 'Whereby I might not call myself as wholesome a morsel for the worms as any.'

- Emphasis by cadence, gentle surprise, or epigram*:
• 'The Stoick is in the right. He forgets that he can die, who complains of misery: we are in the power of no calamity while death is in our own.'
• 'Time is an antagonist which is subject to no casualties.' '. . . how little my love of them would serve me when the silence of lawn and woods in the dews of morning should be completed; and all my thoughts should be of those whom, by neither, I was to meet more.' The cadence here becoming suddenly spondaic, brings pause and contemplation. Change 'more' into 'again,' and this quality is
• lost. A like effect of spondaic rhythm comes into my mind: 'Keeping the buttercups *sō lōng wāitīng*.'

Emphasis by alliteration and assonance is illustrated by the sentence 'how little,' etc., in the last paragraph, and by many ready examples. (*Vide* p. 143.)

Emphasis by repetition needs no examples; the mode enters into every effective essay or oration, and its somewhat excessive use by Matthew Arnold is well known. A more adroit way is a manifest evasion of reiteration: *e.g.* 'There are fungi which

have well-marked tints, but the Latin names of these agarics are not pleasant';—by eluding 'fungi' on the return and substituting 'agarics' emphasis is attained by an ironical pleasantry on 'the Latin names.' A like example is to be seen in Sir Thomas Browne's contrast of 'brain' with 'crany' (p. 131).

Emphasis by epigram, humour, or irony is more difficult: e.g. 'Shelley took lodgings at York, under the shadow of what Shelley calls that "gigantic pile of superstition" the Minster; . . . but Hogg's society made the Minster endurable'; 'I am a conservative, conservatism I repudiate'; 'Do not take it *au tragique*, be a little insincere in your sincerity.' Irony, however, needs a very light and practised hand; and young writers will do well to forbear the use of it.

Emphasis by suspension would need longer quotations than I can afford; they may be found readily, for instance, in Thackeray.

Emphasis by summary is to be seen in the force of a short sentence at the close of a long paragraph: the reader will find examples of this mode from Mr. Bryce and Henry Sidgwick on p. 72.

Finally, sometimes a refined and grateful emphasis may transpire in the evident cherishing of a sentence or paragraph. Speaking generally, we would not see the labour of the file; but if, now and then when the matter is worthy of it, by a nice handling of words or turn of phrase the author betrays his pleasure and a quiet alertness in his task, he pays a compliment to his reader, who in his turn is pleasurably affected (p. 28). A candidate writes

'bad air and scanty food dispose to tuberculosis,' and I am interested at once; the indifferent candidate always writes '*predispose*.'

Emphasis by punctuation (vide p. 146).

If emphasis is to be such as I have described, the converse is true that stress must not fall upon a weak word or syllable—such as a secondary pronoun or adjective, or a preposition (p. 73). Thus it is that usually we end the sentence with a verb, which is nearly always a strong and animated word (see p. 87 and 'Accent' p. 143).

Metaphor.—'As a thorn goeth up into the hand of a drunkard, so is a parable in a fool's mouth'; yet as we have seen (pp. 16, 84), metaphor is so intimate a function of language that to try to avoid it is to try to avoid one's shadow. Few words in the stream of language have been rolled quite smooth—none perhaps. With the broken lights of some of these gems the artist in language may lay in cunningly his tints for rare and various reflexions; he may compare a lewd woman's eyes to 'the cruel spiders with their crafty ginnes.' With an opposite cunning the scientific draughtsman seeks purer and austerer lines, yet analyse and alembicate his words as he may, their subtler virtues and reminiscences will play upon him in spite of himself; though metaphor, open metaphor, he may, and usually will, evade.

Of the metaphorical without open metaphor the following is an example:

In our study of anatomy there is a mass of mysterious philosophy, and such as reduced the very heathens to divinity;

yet amongst all those rare discoveries and curious pieces I find in the fabrick of man, I do not so much content myself, as in that I find not ; that is, no organ or instrument for the rational soul ; for in the brain, which we term the seat of reason, there is not anything of moment more than I can discover in the crany of a beast.

This passage, containing no definite metaphor, is nevertheless far more metaphorical than the following into which metaphor is deliberately imported :

It would seem as if the different impulses met in their courses with an unwonted resistance to their progress, as if the wheels of the cerebral machinery worked stiffly, so that the lesser shocks of molecular change which otherwise would have moved them, were broken and wasted upon them.¹

Indeed, a literal sentence may have an imaginative value as rich as the rarest metaphor : *e.g.*

The grateful devotion of the Flavian family placed the monogram of Christ in the midst of the ensigns of Rome.

Concerning covert metaphor, then, which clings to nearly all our parts of speech we shall be choice and vigilant, for the shortest metaphorical expressions may land us in such false phrases as 'This was *pandering* to red tape'; 'He *discarded* that state of things,' 'He failed to *grasp* a view of the subject,' or 'This was *answered* by the *view*'; '*Events* were on the *wing*'; 'The very *centre* and *hinge* of the matter'; 'To eradicate the stamp';

¹ This sentence is taken from Foster's *Physiology*, a work which I propose to the medical student for his imitation. Even when its matter may become belated, it should continue, like Watson's *Lectures*, to be a model of scientific style ; in the virtue of renunciation no less than of exposition.

'Worm-eaten by rats'; 'Barricades in sheep's clothing'; 'To illuminate perplexities'; and (but the other day by a celebrated author) 'A Utopian will-o'-the-wisp.' We remember Dr. Johnson's sarcastic comment on 'Not one link shall be left to clank upon our limbs'—'Sir, one link cannot clank.' In very few words we may bring in much false metaphor: *e.g.* 'The germ, the dawn, of a new vein of literature.' Or, again, the metaphor may be fine but out of value: *e.g.* 'Silence deep as death' is too great a metaphor for any moment less than impending battle.

Even in the phrase of great authors metaphors are too often forced; they do not think, as I have counselled on pp. 38 and 151, under the form of visual conception: *e.g.* Burke spoke of Windsor Castle as a 'temple and fortress standing inviolate upon the brow of the British Lion'; an awkward vision. If Burke's great thoughts are in expression too often turgid and diffuse, we must remember that they were delivered in oration, not as prose. De Quincey's exorbitances, which are prose not speech, have less justification. From the page of an accomplished and more measured author I will take a passage which I venture, however, to regard as false metaphor:

The bright crystal laws of life endure like pointed stars, guiding a traveller's eye to the celestial pole by which he steers.

On revision, 'by which he steers' should be deleted; for, if not pleonastic, at any rate it trails too much for a 'loose ending' (p. 68); but the main point

is that the processes of life are not comparable with crystals.

Furthermore, metaphors must be used with a sense of unity and of relative values, lest literal be mingled with figurative clauses, and vulgar, grotesque, or erroneous associations creep in: *e.g.* 'Boyle was the father of philosophy, and the brother of the Earl of Cork'; or Burke's conjunction of the watch and ward of the proud keep of Windsor, the crown of England, and the solemn order of all Estates and Dignities of the realm, with the safety of the Duke of Bedford (Letter to a Noble Lord). Finally, to use metaphor with imperfect knowledge is apt to lead to 'howlers'; for instance, 'He found he had created a Frankenstein,' or, 'The minister's servant was the scape-goat who had caused all this trouble.'

As writers in science, then, we shall be chary of overt metaphor, though for liveliness, point, or brevity we may use it now and then; as this of Lord Orrery: 'Lord Thomond is laid up with the gout. The Irish hospitality has broken out in his feet': or, to take a graver example, 'His leaf shall not wither.' Such metaphors as these, if charged with no false or alien notion, are as large in significance as in terms they are concise.

Abstract terms.—However, ambitious figures are not now a frequent fault of scientific writing; the opposite fault rather prevails, that of abstraction to the degree of vapidty: thus nations are no longer, they have become nationalities; authors have become authorities; events eventualities; persons

personalities; characters characteristics; and so on. I read, in a modern history, 'That nationality was ultimately actually divided,'—which is not only dissonant but inane. And again, 'This machine has now become an actuality';—*i.e.* the concrete has evaporated into the abstract. 'This actuality has now become a machine' would be less inept. A suspicious judge may sometimes be tempted to think that an abstract phrase conceals concrete ignorance: *e.g.* 'The product thus obtained has a peculiar appearance.'

The propensity to write in language of too abstract a quality must be guarded against as mawkish. Beware, for instance, of nouns, substantive and adjective, ending in 'ism,' 'istic,' and 'isation'; scrutinise these words suspiciously, for they come of a vacuous tribe. That without abstraction we cannot think is true, but we think in order that after all we may return more effectively upon the concrete. Thus in a revise before me, 'to prove their *strength*' is well altered into 'to prove their *wings*.' We must not get out of touch with the body of things; for as we write we are apt to think, and as we think, to act, and to teach others to act; so if our thoughts fade to the ghosts of things, if our words are disembodied of life and colour, we shall come into action with full categories, but with empty hands. 'The reader who would have wept over a hard case is by a general proposition scarcely made uncomfortable.' Thus in etiology we may forget the complex causes of the particular instance; in our abstract terms, the poor concretion, man.

A plan of a house is a poor substitute for a home; a map is an invaluable guide, but he who knows the map only will be a bad traveller.

Quotations.—On p. 92 I have hinted that quotations should be used sparingly. We quote for two purposes, for argument and for illustration. In quotations of argument the writer sets forth opinions of persons of authority, that, by the support of an ally, or by the confutation of an opponent, he may reinforce his own thesis. When it is necessary to quote the very words of an author, as a summary or aphorism, or documentary evidence, the passage must be repeated literally, distinguished by inverted commas, and so extracted as to represent fairly the context from which it is taken; for an extract, though literally accurate, may in isolation misrepresent its context. Generally speaking, however, it is more convenient in argument to condense quoted opinions or observations into a few scrupulously fair sentences. As literary graces, illustrative quotations should be used sparingly; if very apt they bring the pleasure of a kind of wit, but if not so happy they load the text, and arrest or cross the flow of thought. Instead of hanging gems about his text for the reader's admiration, the accomplished author lets his opulence appear more intimately and allusively, as one who writes for the wise; it gleams through his prose as beautiful creatures through bright water. Macaulay is a notable example of this opulence in allusion; in other fine writers—as in Lamb—the accomplishment is still more subtle and intimate. In

Macaulay's Essays such passages stare from every page :

The Church was now victorious and corrupt. The rites of the Pantheon had passed into her worship, the subtilties of the Academy into her creed.

Lamb's quality is more delicate and elusive :

Those little, lawless, azure-tinctured grotesques, that under the notion of men and women, float about, uncircumscribed by any element, in that world before perspective—a China teacup.

Its humour apart, there is scarce a word in this sentence which does not speak of various fancy, delicate values, and converse with the finer issues of things. But with these issues and those opulences, in the prose of science we have little to do; our prose must be lucid, precise, unequivocal: ornament and allusion we shall for the most part deny ourselves. Clarity is our probity, and our beauty.

If this be so with forcible, apt, or elegant quotations, how carefully shall we avoid those battered nosegays—once plucked young and fresh, now wilted and sapless—which are stuck about too many of our essays—as I fear on pp. 38 and 39. One trembles as the sense opens to the inevitable scrap of Horace or Shakespeare. We see "more things in heaven and earth, Horatio" trembling upon the point of the pen! Will the author yield to the temptation? Yes, here it is; and here too is "Patience sitting on a monument"; "Hope springs eternal in the human breast"; and "Nihil humani," "Eheu! fugaces," "Coelum non animam

mutant," etc. etc. Such quotations do not betray the reading and taste of the essayist : they are to be picked up in the street by the poorest of us ; and, stale as they are, are yet often misused. If adorn we must, let our gems be cut from our own quarries ; let us use our own excerpts with a full sense of the context whence they came, and be sure that this is the sense of our own context also, and a happy interpretation of it.

Sound.—By some hard-headed persons it is said that to compose for sound is, or may be, to satisfy the ear rather than the mind ; that the more sensitive the ear, and the more subtly it is favoured, the less may be the part of the mind in the theme. It is in poetry, perhaps, rather than in prose that this peril is more insidious, and with poetry this tract is not concerned. But, whether in poetry or prose, to say that with fine sounds to the ear we may cheat the understanding, is one thing ; it is another to assert that if sound and sense be fine alike, the sound will so charm the ear that the sense may not pass into the understanding. In sweet sound and pregnant meaning the English Bible and the English Liturgy are perhaps—if we take them from cover to cover—incomparable ; but of them the more sweetly the sound travels through the ear, the more surely does the sense steal into the heart. Yet I suppose for all readers, whether they analyse their sensations or not, clumsy or jingling or ugly prose is tedious or even intolerable. The attention wanders, the patience fails.

I must not tarry to amuse myself and the reader with the sweet rhythms and chimes of literary prose, nor even with the felicity of some scientific prose; I shall be better employed in the warning that if we seek merely or even mainly for preciousness of word our message will be barren; or, like a painted woman, even odious. When in Pater or Stevenson—not the worst of such sinners by any means—when even in them I see the paint I am Philistine enough to close the book. Sometimes, even in Virgil or Tennyson, in the lusciousness of form we tremble for the substance. If, as we read, we meditate first not on the bloom of the phrase but on the core of the thought, the art is good: if the phrase is our first charm the work is a cheat; of such is decadent art. In the sentence, ‘I will answer him according to the multitude of his idols,’—who, as he takes this message home to himself, thinks then of the words of it? Or, to repeat Bright’s well-known appeal:

The Angel of Death is abroad through the land; we may almost hear the beating of his wings,

who of his hearers thought then of the words? When men began to say, ‘How far away it would have been had the orator said the *flapping* of his wings,’ the occasion had passed. This is literature, however, in which sweetness is a hardly dispensable element; scientific prose is rarely literature, rarely perhaps ought to be: now and then some great work even of science appears in a form which men will not forget; but ordinarily scientific language must be a vehicle of

current thinking rather than a monument of thought, and it is the lot of the scientific tract to discharge its burden into the stream of knowledge but itself to be consigned to the cockloft.

Nevertheless, if, in saying that scientific prose should run pleasingly as well as forcibly and lucidly, I cannot claim for the first quality the importance of the other two, yet a harmoniously written paper will make its way when the same argument expressed in ugly phrase, when, as Ascham says, "It doth rather trot and hobble than run smoothly," fails of its mark. Bad prose is bad business; even if the badness be nothing worse than ugliness. Let the ear then have its way as the phrases are conned; in the ear if we will but listen for them our rougher rhythms and inharmonious sounds will hang; so that we note as we read that something there was wrong, we hearken for a moment, and then look back to see where the jar or the limp came in, and try to cure it. *E.g.* 'Of all I have *known* he could least hold his *own*,' is not only an unpleasant assonance but imports the alien rhythm of verse. Perhaps you have written, 'recurrences of this *kind* are *found* to *abound*'—you read it out; your teeth are set on edge somewhere; where was it? You look back, you perceive *kind*, *found*, and *abound*; and you abate the nuisance. Yesterday in a passage of delightful prose this clause, 'one *venial fault* frustrated the *effect*,' grated on my ear, though I suspect it was written for its sound.

So far as sound goes, then, in scientific prose we shall carry our pains so far as to avoid jingles, lilt,

harsh assonances and sequences, unrhythmical clauses, and so on, if not much beyond this: when we have learned what to avoid we may then try to use dexterously, though still very frugally, some of the charms of style, such as assonance, alliteration, rhythm, cadence, and harmony.

It is often hard to surrender a just and cogent word because it is dissonant with some neighbouring word which is even more indispensable; yet it generally happens not only that the difficulty may be turned but that the labour issues in a more effective phrase: *e.g.* in the extract on p. 20 I had to translate 's'est émancipée et a pris la robe virile,' etc. I had written 'Emancipated itself and put on the robe of *manhood*'—this jingle on re-perusal was intolerable, for *manhood* was not wanted to emphasise *emancipate*; but it cost some minutes to hit on 'came of age' instead.

Again, on p. 117 I had written, 'This is treacherous ground even for a philosopher to tread upon,' and on revision noted the disagreeable assonance of 'treacherous' and 'tread'; yet to find a better word than treacherous was not easy: a moment later, however, I perceived that 'to tread upon' was tautological, and the deletion of these words while relieving the ear improved the sentence. In a book before me I read, 'To maintain' (the higher life) 'against the slow stain of the world's contagion,' etc. 'Slow stain' is good, so for 'maintain' the author ought to have substituted some such word as 'cherish': yet even then the three long *a*'s are unpleasant. This kind of fastidiousness is not

peddling, no more so than a prejudice in favour of the singer who sings in tune; without a cultivation of this taste our pleasure in prose or poetry would be rudimentary. Yet current writing is full of the viler assonances, clumsy or lilting accents, awkward quantities, choppy or monotonously equal periods. Surely his ear is blunt who can allow himself to write '*Except septic causes intercept it*'; '*Persons apparently healthy frequently find a difficulty*'; '*The prepossession acts hostilely upon the facts*' (hostilely, like '*prolixly*' and '*reflexly*,' is an ugly word); '*it is supposed by some that this summary*'; '*this explanation will not bear examination*'; '*he was right when he wrote*,' etc.; '*I fear it will not appear nearly so clearly*'; '*with uniform formality*'; '*a defect in this respect*'; '*probably actually*'; '*the basis of this thesis is the cases*'; '*teach each of them*'; '*occasionally sporadically*.' These sentences I cull readily from essays on my desk.

Collision of vowel sounds and other vocal hiatus are often distressing: e.g. '*Maria(r) Ann*'; '*a raw(r) egg*'; '*did I hear right?*' (for '*aright*'). (*Vide* p. 73.) A collision of *s*'s is very unpleasant. Some words, such as '*valuelessness*,' '*reflexly*,' can never be tolerable and should be discarded; and all such badly balanced words must be kept out of accentuated parts of sentences, such as the beginning and end.

Alliteration and Assonance, which when out of harmony thus jar upon us, when used harmoniously are impressive or delightful. But, as I have said, the paint must be invisible. In the following

sentence of Sir Thomas Browne the artifice is a little too apparent :

To be knaved out of our graves, to have our skulls made drinking bowls, and our bones turned into pipes, to delight and sport our enemies, are tragical abominations escaped in burning burials ;

yet the core of the invention is so impressive we accept the ingenuities. The chief assonances which I have marked are, however, the less obtrusive as they are variously embedded in the consonants ; and all the finer vowel sounds are harmonised. Yet even here beauty comes perilously near counterfeit, and in the following lines the peril is incurred :

Like a glow-worm golden
In a dell of dew.

It would be easy to adduce many really beautiful passages, say from Ruskin, which in this respect overstep the limit of chastity ; less difficult would it be in much recent and lauded prose to find page upon page in which alliteration and assonance are substituted for inward significance, and with slender reward of beauty. Addison, indeed, thought Milton's

And brought into the World a World of Woe

an affectation ; but it is too superb to have a conceit of its vesture, too passionate for affectation.

As means of emphasis such artifices as these are not alien from scientific prose, especially in large or conclusive periods. In the following short sentence the alliteration, if not very choice, is certainly emphatic ; and was no doubt intentional :

Men of all conceivable opinions are custodians of some constituent of truth.

Here too the vowels are all represented, in one quality or another. But in another sentence—‘that a reasonable time should be given to research he readily realised,’ the alliteration is bad, because as the sentence is not emphatic the assonance falls heavily. In conclusion, I need scarcely say that alliteration and assonance are not a mere reverberation of initial letters: echoes may be awakened by symphonic vowels or consonants in any succession of syllables; the music of the sentence may steal into our ears on many cadences. On the other hand, trippings, jingles and clinks will creep in as furtively, and must be vigilantly abated.

Accent and Quantity are more important in scientific and other practical exposition, and are more telling than assonance. Thus in part emphasis is properly distributed, and doubt, circumspection, meditation, energy, or rapidity are signified. I have quoted (p. 66) from a charming author:

The wall gave shelter to a few small birds, and to a solitary man that watched them, etc.

The three long syllables ‘few small birds’ are scarcely volatile enough, and ‘solitary man’ is on the other hand too rapid for stillness and loneliness. I wonder if the author would accept the passage thus:

The wall gave shelter to a few little birds, and to one lone man, etc.

(A bird is not small but little, and the alliteration of 'little' and 'lone' is well.) As we read, the ear is quicker than we know, or should be; in this passage—

darkness out of which you can hear the voice of the night wind and the dull boom of the disturbed sea—

he who can read 'disturb'd,' even to himself, may be sure he has no ear for rhythm. But in seeking for balance and rhythm we must beware of versification; *e.g.* this half pentameter 'apparently perfectly well' is too tripping (indeed a stout monosyllable rarely ends a sentence prettily). Moreover a fine rhythm, if not varied in form and time, becomes monotonous: the gravity of spondees may degenerate into sluggishness; the tripping of dactyls into levity.

Stops.—Many authors leave the stops to the typewriter, or the printer's reader; a slovenly habit: the stops should be inserted by the author himself upon his manuscript, and carefully corrected by him in proof. Too often typewritten theses are delivered to me as they come from the machine, unrevised and abounding in clerical errors; now the author is responsible to us, not the typewriter. In German books, where long and ill-built sentences stand especially in need of careful punctuation, the use of it is even more careless than in English. Commas are, generally speaking, too frequent; a comma is used rather as a cheap ornament for careless profusion than as a guide to meaning. Originally the 'comma' was not the mark itself but

the section enclosed by it; St. Jerome says of Hosea 'Commaticus est, et quasi per sententias loquens.' The mark itself indicated to the reader a brief pause, the semicolon a somewhat longer pause, the colon a pause longer still, and the full stop a rest. Dashes are often used in place of the comma; but the dash is for the interruption of some demur or aside; it is a note not of construction but of intercalation: like the parenthesis, it is to be kept in strict subjection. Hyphens are rarely wanted; compound words are incongruous with the English tongue. By the semicolon we divide the longer sentences into proportionate parts; but, besides this use, this stop and the colon often give emphasis, even in short sentences, by bringing into closer apposition some independent, or grammatically discontinuous antithesis, reinforcement or illustration which, if carried over to a following sentence, would have a less instant effect. Thus:

The Philistine lords command: commands are no constraints.

They have repudiated all liability: we must reconsider our position.

Even the comma may have this kind of value in less degree, as in

Voyaging through strange seas of thought, alone.

Mr. Binyon may forgive me if in the second of his fine lines I venture to insert a comma after *Amiata*, where it seems to me to add a contemplative note to the passage:

Amiata's mist apparelled head,
Amiata, that sailors watch on wide Tyrrhenian wave ;

as it does likewise in these words 'the wind passeth over it, and it is gone.'

As a larger illustration of the functions of the comma I will quote as follows :

then, in an hour,
Ensnared, assaulted, overcome, led bound,
Thy foes' derision, captive, poor and blind,
Into a dungeon thrust, to work with slaves.

Note the absence of the comma in 'poor and blind,' its insertion in the last line. . In the following lines the semicolon is well employed :

The platform is small, but gives room for them all ;
And they are dancing merrily.

The next quotation I give as an example of the effective use of both semicolon and colon :

Fathers are wont to lay up for their sons ;
Thou for thy son are bent to lay out all :
Sons wont to nurse their parent in old age ;
Thou in old age car'st how to nurse thy son.

In his distribution of the stops the author will find it helpful to con the sentence over, as if overheard ; then he will perceive the places of the longer and shorter pauses, and note them (cf. Buffon, p. 9). But by stops to block out ill-distributed matter into clumsy portions is bad workmanship. To trust to the fallacious comma a sentence such as this, 'I am a prisoner unfortunately you are my judge,' might lead to a misunderstanding.

In these and such passages the reader should note that stops may take the place of coupling words: a comma may often supplant 'and' or 'but' (p. 124); a semicolon a 'therefore' or the like; a colon may supplant even a short phrase, and thereby give terseness and point. We may write 'Courage and faith and devotion are baffled'; or 'Courage, faith, devotion are baffled'; in either form we impart a high note which we lose in the trivial form 'Courage, faith and devotion are baffled. Again, 'In my success you repudiated me: will you receive me in my peril?' the colon avoids 'now that I come to you in my peril,' etc.

As to young writers stops are nothing, so they are profuse with copulatives (*vide* p. 124); they think every joint must be oiled with 'and,' 'whilst,' 'since'; yet there is more hope for an abrupt than for a slippery style. Journalists, on the other hand, for smartness' sake, will jolt us with a full stop where a colon or semicolon was wanted; *e.g.*

There are some people to whom a walk in an English wood is as exciting as a journey through a primeval jungle. To whom the commonest birds and plants and flowers have a perpetual touch of novelty.

Here, by substitution of full stop for semicolon, we are treated to a sentence containing no verb, and to an ugly jerk withal. Finally, when testing your sentences never rely upon any stop or stops; for the time they must be removed or disregarded.

Little counsels.—Do not let the abbreviations

of the note-book be carried into the essay, except of course in schedules and other tables.

Whether it be by the generosity of typewriters, or the waywardness of manuscripts that capitals are sprinkled capriciously about the pages of theses, I cannot tell. Were initial capitals bestowed on nouns with consistent profusion it would suffice to point out to the essayist that in modern printing capitals are fewer than of old. But the tiro is not only profuse with them, he is utterly capricious; his capitals are bestowed without order and without discrimination. Examples are needless.

Contractions.—I do not say that ‘etc.’ is not to be used, but its use should be very rare, and chiefly for omission of parts of quotations, and the like. When used by the author to eke out his own matter, or to save himself trouble, the reader is disposed to exclaim, “If you have anything more to say, pray say it; if not, finish your sentence properly: ‘etc.’ conveys no meaning at all.” So in the finished copy it is well to delete such contractions as ‘e.g.’ ‘i.e.’ ‘viz.’; and, except of course in statistics and calculations, figures look better in words than as numerals.

Sometimes in citation of authors by name I am asked *what is the best usage as to titles?* Are we to say ‘Roe says such and such a thing, but by Doe the contrary is asserted’? My advice is that when we speak of living authors either of our own country or well known to most of us, it is good manners to do so under their proper titles; we should say ‘Sir John Doe believes such and such a thing’;

'Professor Roe infers from his experiments,' etc., etc. On an author's decease, and his promotion to the immortality of letters, the title is dropped: we speak of Darwin and Herbert Spencer; but happily still of Sir Alfred Wallace and Sir Joseph Hooker. To the names of foreign authors, as a rule, we do not prefix a title, even during their lives, except in the case of those who are socially known to many of us. Foreign investigators are for the most part but names to us, and to names we owe no formal courtesy.

Spelling.—I am one of those who can spell; nevertheless in the matter of spelling I confess myself to be in secret a libertine. Only by social pressure and the printer am I held in subjection; for English spelling is as wasteful and otiose as are German genders and declensions: its vagaries have not the charm of symmetry, the interest of significance, nor the sanction of history. I have a sneaking sympathy with Lady Maria, "'Tis well enough spelt for any person of fashion." Yet even so doughty a knight as Landor found custom too much for single combat; and reformers must wait until some strategical move can be made all along the line. Some candidates, I see, spell 'aneurysm' with an *i* in place of *y*; to the use itself I have no objection, but we must bear in mind we are entering upon no trifling task. Are we prepared to write also hidrophobia, dispepsia, analisis, etimology? Unless we are bold enough for this had we not better be content with such anarchy as we have?

Models.—In conclusion, the student will probably look to me for some advice concerning the use of great prose writers as models. In this tract if I have used the word 'style' at all, it has been but trivially and cursorily. On p. 9 I have said that matter and form are as inseparable as skin and bone; and again and again I have urged that slovenly writing is slovenly thinking, and obscure writing, for the most part, confused thinking. To recommend 'models of style' therefore seems to me to be a counsel of mimicry, and a perpetuation of fallacy. Let the student read by all means, and read widely, not to imitate individual form but to store his mind with ideas of thought and imagination, and with words in all their variety and significance. Let him converse with great authors, in poetry as well as in prose; for poetry is literature at its highest and strongest; and almost all poets—I say 'almost' to avoid contention—have written fine prose. Let him train his mind also to think and imagine continuously without fatigue, as he trains his body to endurance. In current journalism the crafty paragraph writer is but too well aware that his readers cannot think for more than some half-dozen lines together—say for one minute and three-quarters; he stops therefore, leaves a space with a black line across it where his enervated readers may rest, and then starts off again, on the same matter. The more vigorous reader, supposing the matter, or one aspect of it, to be at an end, lightly leaps the gap only to find himself where he was before; and so bumps his shins from

'par' to 'par' of unchanged subject, where he would have run on an even page at his ease. Be assured there is no worse kind of 'style' than snippets.

My advice on models is then: Imitate no one; read to strengthen and enlarge your ideas, your understanding, and your language; try to build in the matter you acquire with that which you had, and to see it, as it were on a plan or model outside yourself; observing where its features are amorphous and its outlines faint. Thus to *visualise* the matter of thought has become a habit with me, and a very helpful one. On p. 132 is an example of a concept (Burke's) unchastened by the eye of the mind. In the following sentence the author had not seen his thought, or he would never have written:

'If we imagine *ourselves* standing *exactly* on a pole of the earth, with a flagstaff fastened in the ground, we should be carried round the flagstaff by the earth's rotation. . . .

(Where was the flagstaff?)

In reading I keep near me the slips of paper described on p. 11, and jot down notes on what I read; not often, I admit, in the form of the author but in the form his matter takes in my own mind. If, with the mind thus edified, an essay be made to produce for one's self; if the essayist, seeing his plan in his eye, will describe it precisely, cogently, and as clearly as he sees it; and if he will then reduce his words and clauses to their simplest and shortest forms, rejecting

not exuberances and superfluities only but also matter alien in that place, however interesting in another, he will find that, in the main, sound matter so conceived makes sound style, and original matter original style. Force, lucidity, unity, simplicity, and economy of expression are virtues which we may all attain; originality will be as God pleases.

Nevertheless, as we may absorb something of style by watching a good cricketer or a good tennis player—especially when we have made ourselves so far as to know where the difficulties are, so no doubt we may improve our composition somewhat by setting the eye now and then for the finish of an author—that is, for ease and adroitness—rather than for deeper intellectual or imaginative content; furthermore, it is true that for this purpose some authors are more convenient than others. I am surprised, for example, to see students advised to use Carlyle or Ruskin for this purpose; we might as well try to model our waistcoats and our manners after high priests or oriental kings. In those writers, as in Sir Thomas Browne, Jeremy Taylor, Gibbon, or De Quincey, wealth of thought and imagination naturally gave birth to enrichments of form; but I fear that if we take to mimicking these meteors we shall become ourselves models of pretentious inanity. Bacon's Essays are not for imitation—they are too sententious, too aphorismal for us, and even for a Lord Chancellor a little disjointed at times; in less powerful hands such a style would fall into an overwrought conciseness. If we are agreed that scientific

writers must set before themselves the simplest and directest means of expression; and if we must watch the manners of fine composers, let us watch those in whom, as in Pascal, these qualities are eminent. In literature read Dryden (who is quite a modern writer), Sterne in his less fantastic pages, Lamb, Goldsmith, Swift, Johnson (in Boswell or *The Lives of the Poets*). Paley writes a style which men of science would do well to take note of. The prose of Newman or Church is excellent, but infected with scholastic subtlety, *i.e.* by a desire for system rather than truth (p. 42). Froude's prose is admirable; and it is perhaps better to know Froudean history, than to know none. In another category I put above all the English Bible and Liturgy; but do not heed the advice to stick to 'Anglo-Saxon' words only; these make for terseness, simplicity, and homeliness; they make for things rather than notions: still by its Latin elements our language is endowed also with the swiftness, flexibility, and those more abstract forms of expression without which modern thought would be impossible. Of writers of the day I do not propose Meredith, his wit is too sophisticated; nor Stevenson who is too fastidious, nor Kipling who is—to use the untranslatable French word—'too brutal.' Of such examples as come now into my head are, of graver authors Jebb, John Morley, Goldwin Smith, George Trevelyan, Mackail; of lighter authors Thomas Hardy and Barrie come first into my memory. Of scientific and medical authors read Latham, Watson, Tyndall,

Paget, Michael Foster. Huxley is too big for us. These off-hand suggestions will serve as guides to many another author of like merits; but when all is done, what you are your prose will be.

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